FIG. 1

FIG. 2

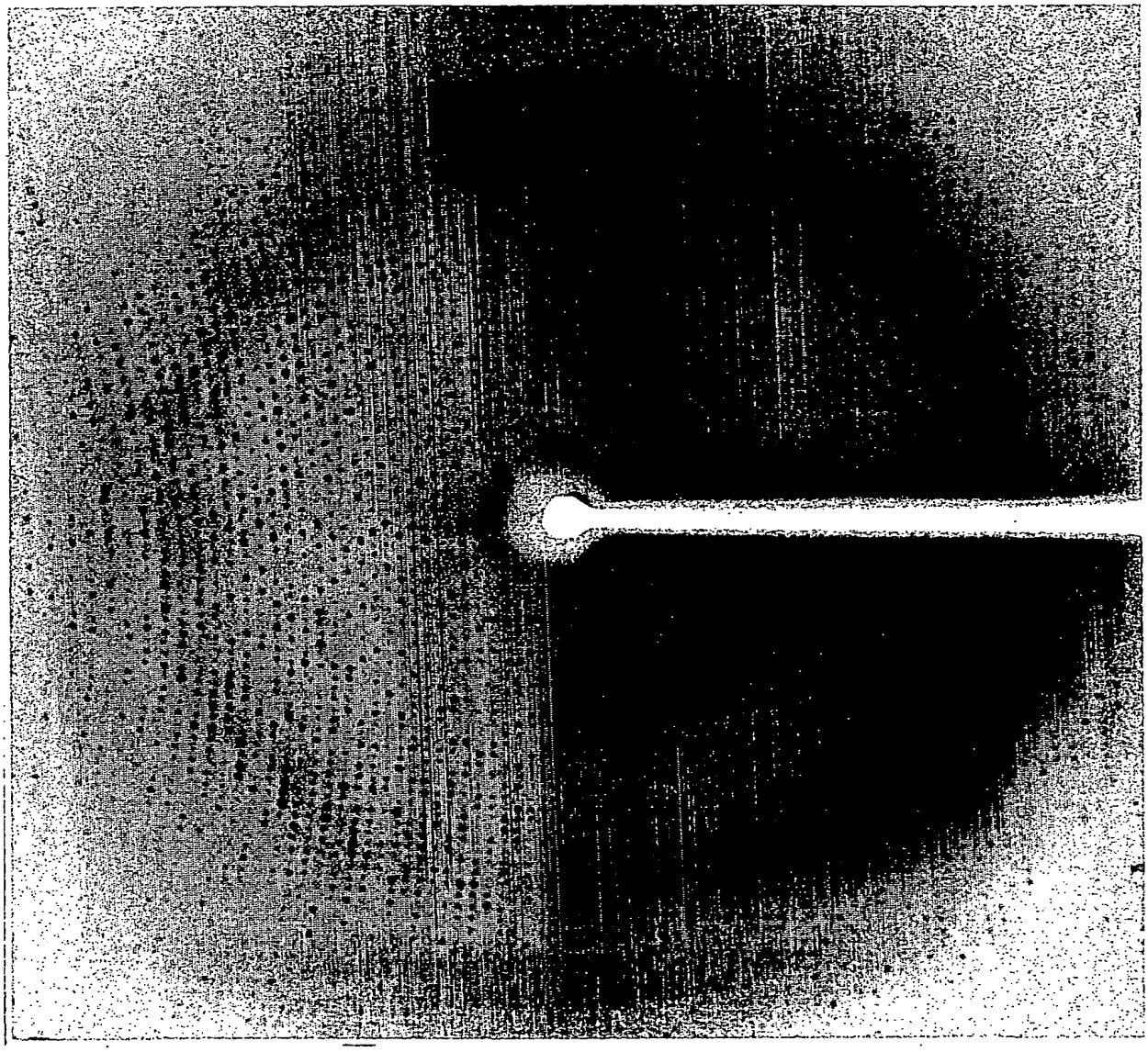

FIG. 3

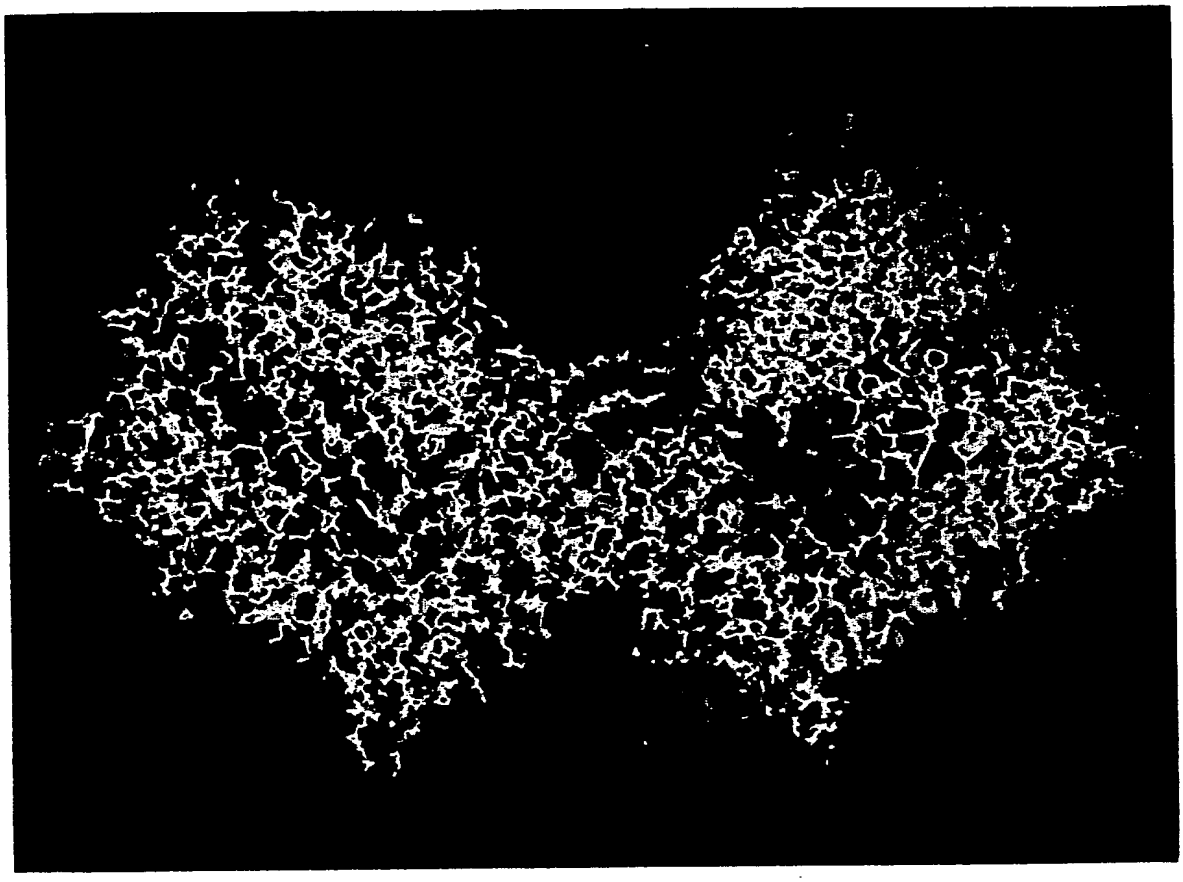

FIG. 4-1

Three-dimensional structural coordinate of dipeptidyl peptidase IV

ATOM	1	CB	ASP	38	44.493	31.885	58.927	1.00	42.46	A C
ATOM	2	CG	ASP	38	44.146	32.095	57.467	1.00	42.00	A C
ATOM	3	OD1	ASP	38	43.664	33.198	57.133	1.00	42.55	A O
ATOM	4	OD2	ASP	38	44.360	31.171	56.655	1.00	40.85	A O
ATOM	5	C	ASP	38	45.876	29.805	58.634	1.00	41.68	A C
ATOM	6	O	ASP	38	46.980	30.327	58.778	1.00	42.02	A O
ATOM	7	N	ASP	38	44.758	30.264	60.778	1.00	42.88	A N
ATOM	8	CA	ASP	38	44.639	30.404	59.296	1.00	42.51	A C
ATOM	9	N	SER	39	45.679	28.711	57.905	1.00	40.69	A N
ATOM	10	CA	SER	39	46.775	28.013	57.241	1.00	39.98	A C
ATOM	11	CB	SER	39	46.584	26.501	57.380	1.00	40.43	A C
ATOM	12	OG	SER	39	45.410	26.079	56.703	1.00	41.11	A O
ATOM	13	C	SER	39	46.960	28.343	55.763	1.00	39.60	A C
ATOM	14	O	SER	39	47.870	27.813	55.123	1.00	39.66	A O
ATOM	15	N	ARG	40	46.093	29.190	55.217	1.00	38.12	A N
ATOM	16	CA	ARG	40	46.194	29.575	53.810	1.00	37.02	A C
ATOM	17	CB	ARG	40	45.082	30.558	53.439	1.00	36.96	A C
ATOM	18	CG	ARG	40	43.683	29.984	53.404	1.00	35.97	A C
ATOM	19	CD	ARG	40	42.688	31.098	53.137	1.00	34.97	A C
ATOM	20	NE	ARG	40	42.774	32.134	54.161	1.00	35.27	A N
ATOM	21	CZ	ARG	40	42.097	33.276	54.125	1.00	35.55	A C
ATOM	22	NH1	ARG	40	41.280	33.528	53.111	1.00	35.54	A N
ATOM	23	NH2	ARG	40	42.239	34.167	55.097	1.00	34.68	A N
ATOM	24	C	ARG	40	47.530	30.251	53.531	1.00	35.91	A C
ATOM	25	O	ARG	40	48.100	30.901	54.407	1.00	34.18	A O
ATOM	26	N	LYS	41	48.031	30.100	52.310	1.00	35.43	A N
ATOM	27	CA	LYS	41	49.286	30.749	51.937	1.00	34.97	A C
ATOM	28	CB	LYS	41	49.705	30.338	50.525	1.00	35.73	A C
ATOM	29	CG	LYS	41	48.684	30.719	49.467	1.00	38.56	A C
ATOM	30	CD	LYS	41	49.026	30.151	48.096	1.00	42.36	A C
ATOM	31	CE	LYS	41	47.805	30.201	47.173	1.00	45.55	A C
ATOM	32	NZ	LYS	41	48.070	29.686	45.791	1.00	47.41	A N
ATOM	33	C	LYS	41	49.038	32.257	51.957	1.00	33.41	A C
ATOM	34	O	LYS	41	47.891	32.715	51.981	1.00	33.24	A O
ATOM	35	N	THR	42	50.110	33.032	51.954	1.00	31.47	A N
ATOM	36	CA	THR	42	49.967	34.479	51.937	1.00	30.04	A C
ATOM	37	CB	THR	42	50.860	35.139	53.000	1.00	31.23	A C
ATOM	38	OG1	THR	42	52.234	34.843	52.725	1.00	30.79	A O
ATOM	39	CG2	THR	42	50.501	34.622	54.386	1.00	30.12	A C
ATOM	40	C	THR	42	50.389	34.971	50.558	1.00	28.34	A C
ATOM	41	O	THR	42	50.977	34.220	49.782	1.00	27.76	A O
ATOM	42	N	TYR	43	50.058	36.217	50.234	1.00	27.55	A N
ATOM	43	CA	TYR	43	50.465	36.782	48.954	1.00	25.72	A C
ATOM	44	CB	TYR	43	49.615	38.006	48.623	1.00	26.01	A C
ATOM	45	CG	TYR	43	49.922	38.625	47.280	1.00	26.92	A C
ATOM	46	CD1	TYR	43	50.977	39.527	47.130	1.00	26.68	A C
ATOM	47	CE1	TYR	43	51.253	40.113	45.895	1.00	27.02	A C
ATOM	48	CD2	TYR	43	49.152	38.315	46.158	1.00	26.40	A C

(Continued)

FIG. 4 - 2

ATOM	49	CE2	TYR	43	49.424	38.891	44.919	1.00	25.89	A C
ATOM	50	CZ	TYR	43	50.473	39.790	44.796	1.00	25.91	A C
ATOM	51	OH	TYR	43	50.741	40.370	43.579	1.00	25.09	A O
ATOM	52	C	TYR	43	51.933	37.165	49.160	1.00	24.97	A C
ATOM	53	O	TYR	43	52.251	38.049	49.955	1.00	23.33	A O
ATOM	54	N	THR	44	52.818	36.482	48.444	1.00	24.06	A N
ATOM	55	CA	THR	44	54.255	36.685	48.580	1.00	25.90	A C
ATOM	56	CB	THR	44	54.960	35.336	48.547	1.00	25.86	A C
ATOM	57	OG1	THR	44	54.696	34.709	47.285	1.00	28.12	A O
ATOM	58	CG2	THR	44	54.439	34.436	49.655	1.00	22.61	A C
ATOM	59	C	THR	44	54.917	37.576	47.530	1.00	27.35	A C
ATOM	60	O	THR	44	54.296	37.956	46.535	1.00	29.11	A O
ATOM	61	N	LEU	45	56.191	37.894	47.765	1.00	27.39	A N
ATOM	62	CA	LEU	45	56.978	38.722	46.853	1.00	26.43	A C
ATOM	63	CB	LEU	45	58.377	38.954	47.425	1.00	26.07	A C
ATOM	64	CG	LEU	45	59.310	39.860	46.612	1.00	26.21	A C
ATOM	65	CD1	LEU	45	58.734	41.263	46.517	1.00	25.53	A C
ATOM	66	CD2	LEU	45	60.672	39.896	47.266	1.00	24.37	A C
ATOM	67	C	LEU	45	57.088	38.069	45.473	1.00	27.00	A C
ATOM	68	O	LEU	45	56.939	38.740	44.449	1.00	27.84	A O
ATOM	69	N	THR	46	57.354	36.766	45.445	1.00	26.70	A N
ATOM	70	CA	THR	46	57.448	36.038	44.182	1.00	26.95	A C
ATOM	71	CB	THR	46	57.838	34.559	44.407	1.00	26.87	A C
ATOM	72	OG1	THR	46	59.150	34.495	44.966	1.00	31.74	A O
ATOM	73	CG2	THR	46	57.833	33.793	43.110	1.00	28.08	A C
ATOM	74	C	THR	46	56.076	36.091	43.517	1.00	26.96	A C
ATOM	75	O	THR	46	55.965	36.094	42.289	1.00	25.36	A O
ATOM	76	N	ASP	47	55.035	36.126	44.346	1.00	27.72	A N
ATOM	77	CA	ASP	47	53.659	36.199	43.858	1.00	29.74	A C
ATOM	78	CB	ASP	47	52.670	36.173	45.026	1.00	30.90	A C
ATOM	79	CG	ASP	47	52.289	34.769	45.430	1.00	30.62	A C
ATOM	80	OD1	ASP	47	51.778	34.595	46.553	1.00	32.28	A O
ATOM	81	OD2	ASP	47	52.490	33.845	44.617	1.00	30.71	A O
ATOM	82	C	ASP	47	53.477	37.482	43.073	1.00	28.87	A C
ATOM	83	O	ASP	47	52.918	37.478	41.979	1.00	29.50	A O
ATOM	84	N	TYR	48	53.945	38.581	43.648	1.00	28.54	A N
ATOM	85	CA	TYR	48	53.859	39.878	42.994	1.00	29.04	A C
ATOM	86	CB	TYR	48	54.191	40.991	43.996	1.00	27.50	A C
ATOM	87	CG	TYR	48	54.448	42.333	43.354	1.00	25.16	A C
ATOM	88	CD1	TYR	48	53.460	42.971	42.609	1.00	23.19	A C
ATOM	89	CE1	TYR	48	53.703	44.184	41.982	1.00	24.84	A C
ATOM	90	CD2	TYR	48	55.694	42.946	43.461	1.00	25.89	A C
ATOM	91	CE2	TYR	48	55.956	44.165	42.838	1.00	26.76	A C
ATOM	92	CZ	TYR	48	54.955	44.779	42.096	1.00	27.28	A C
ATOM	93	OH	TYR	48	55.208	45.977	41.463	1.00	25.97	A O
ATOM	94	C	TYR	48	54.820	39.953	41.796	1.00	28.80	A C
ATOM	95	O	TYR	48	54.445	40.401	40.714	1.00	28.24	A O
ATOM	96	N	LEU	49	56.054	39.499	41.988	1.00	29.41	A N
ATOM	97	CA	LEU	49	57.046	39.552	40.918	1.00	30.39	A C

(Continued)

FIG. 4-3

ATOM	98	CB	LEU	49	58.455	39.318	41.481	1.00	27.73	A	C
ATOM	99	CG	LEU	49	58.988	40.473	42.336	1.00	28.28	A	C
ATOM	100	CD1	LEU	49	60.438	40.223	42.711	1.00	26.99	A	C
ATOM	101	CD2	LEU	49	58.860	41.773	41.555	1.00	26.02	A	C
ATOM	102	C	LEU	49	56.804	38.606	39.752	1.00	30.71	A	C
ATOM	103	O	LEU	49	57.147	38.919	38.614	1.00	30.14	A	O
ATOM	104	N	LYS	50	56.198	37.459	40.024	1.00	32.51	A	N
ATOM	105	CA	LYS	50	55.959	36.491	38.971	1.00	33.54	A	C
ATOM	106	CB	LYS	50	56.289	35.098	39.485	1.00	33.30	A	C
ATOM	107	CG	LYS	50	57.763	34.940	39.790	1.00	33.89	A	C
ATOM	108	CD	LYS	50	58.591	35.213	38.545	1.00	35.19	A	C
ATOM	109	CE	LYS	50	60.071	34.945	38.778	1.00	38.12	A	C
ATOM	110	NZ	LYS	50	60.859	35.028	37.515	1.00	39.27	A	N
ATOM	111	C	LYS	50	54.572	36.517	38.361	1.00	34.93	A	C
ATOM	112	O	LYS	50	54.272	35.719	37.478	1.00	35.13	A	O
ATOM	113	N	ASN	51	53.731	37.436	38.822	1.00	36.66	A	N
ATOM	114	CA	ASN	51	52.379	37.569	38.294	1.00	38.39	A	C
ATOM	115	CB	ASN	51	52.428	37.859	36.791	1.00	41.61	A	C
ATOM	116	CG	ASN	51	53.407	38.968	36.436	1.00	44.75	A	C
ATOM	117	OD1	ASN	51	53.212	40.131	36.801	1.00	46.38	A	O
ATOM	118	ND2	ASN	51	54.470	38.609	35.717	1.00	45.80	A	N
ATOM	119	C	ASN	51	51.529	36.324	38.517	1.00	38.21	A	C
ATOM	120	O	ASN	51	50.708	35.976	37.674	1.00	40.60	A	O
ATOM	121	N	THR	52	51.720	35.647	39.641	1.00	36.74	A	N
ATOM	122	CA	THR	52	50.942	34.451	39.926	1.00	35.44	A	C
ATOM	123	CB	THR	52	51.297	33.888	41.298	1.00	35.57	A	C
ATOM	124	OG1	THR	52	52.646	33.415	41.272	1.00	38.62	A	O
ATOM	125	CG2	THR	52	50.367	32.750	41.666	1.00	35.25	A	C
ATOM	126	C	THR	52	49.431	34.686	39.869	1.00	35.17	A	C
ATOM	127	O	THR	52	48.699	33.889	39.276	1.00	36.44	A	O
ATOM	128	N	TYR	53	48.962	35.765	40.487	1.00	33.55	A	N
ATOM	129	CA	TYR	53	47.535	36.081	40.487	1.00	33.46	A	C
ATOM	130	CB	TYR	53	47.084	36.407	41.903	1.00	32.64	A	C
ATOM	131	CG	TYR	53	47.399	35.293	42.861	1.00	33.83	A	C
ATOM	132	CD1	TYR	53	48.341	35.462	43.872	1.00	34.11	A	C
ATOM	133	CE1	TYR	53	48.657	34.425	44.741	1.00	34.24	A	C
ATOM	134	CD2	TYR	53	46.775	34.050	42.741	1.00	36.17	A	C
ATOM	135	CE2	TYR	53	47.084	33.001	43.605	1.00	35.64	A	C
ATOM	136	CZ	TYR	53	48.026	33.199	44.601	1.00	35.74	A	C
ATOM	137	OH	TYR	53	48.343	32.170	45.453	1.00	35.79	A	O
ATOM	138	C	TYR	53	47.266	37.248	39.548	1.00	33.40	A	C
ATOM	139	O	TYR	53	47.486	38.404	39.895	1.00	33.56	A	O
ATOM	140	N	ARG	54	46.773	36.929	38.355	1.00	34.36	A	N
ATOM	141	CA	ARG	54	46.526	37.933	37.327	1.00	34.87	A	C
ATOM	142	CB	ARG	54	46.993	37.387	35.972	1.00	35.72	A	C
ATOM	143	CG	ARG	54	46.887	38.373	34.821	1.00	39.96	A	C
ATOM	144	CD	ARG	54	47.675	37.880	33.613	1.00	43.22	A	C
ATOM	145	NE	ARG	54	47.651	38.831	32.506	1.00	46.70	A	N
ATOM	146	CZ	ARG	54	46.587	39.068	31.744	1.00	49.10	A	C

(Continued)

FIG. 4-4

ATOM	147	NH1	ARG	54	45.451	38.416	31.968	1.00	49.25	A	N
ATOM	148	NH2	ARG	54	46.657	39.957	30.757	1.00	50.00	A	N
ATOM	149	C	ARG	54	45.100	38.445	37.202	1.00	33.84	A	C
ATOM	150	O	ARG	54	44.141	37.687	37.314	1.00	34.59	A	O
ATOM	151	N	LEU	55	44.982	39.748	36.966	1.00	33.05	A	N
ATOM	152	CA	LEU	55	43.693	40.402	36.788	1.00	32.40	A	C
ATOM	153	CB	LEU	55	43.792	41.892	37.123	1.00	29.74	A	C
ATOM	154	CG	LEU	55	44.042	42.344	38.557	1.00	32.26	A	C
ATOM	155	CD1	LEU	55	44.245	43.847	38.571	1.00	31.83	A	C
ATOM	156	CD2	LEU	55	42.857	41.967	39.448	1.00	33.66	A	C
ATOM	157	C	LEU	55	43.298	40.271	35.322	1.00	32.61	A	C
ATOM	158	O	LEU	55	44.004	40.769	34.441	1.00	33.62	A	O
ATOM	159	N	LYS	56	42.189	39.593	35.050	1.00	31.32	A	N
ATOM	160	CA	LYS	56	41.733	39.462	33.673	1.00	31.42	A	C
ATOM	161	CB	LYS	56	40.584	38.453	33.564	1.00	33.54	A	C
ATOM	162	CG	LYS	56	40.978	36.997	33.733	1.00	34.84	A	C
ATOM	163	CD	LYS	56	41.746	36.484	32.530	1.00	38.85	A	C
ATOM	164	CE	LYS	56	42.120	35.009	32.698	1.00	40.95	A	C
ATOM	165	NZ	LYS	56	43.117	34.537	31.685	1.00	43.33	A	N
ATOM	166	C	LYS	56	41.240	40.844	33.252	1.00	30.03	A	C
ATOM	167	O	LYS	56	40.839	41.648	34.088	1.00	28.24	A	O
ATOM	168	N	LEU	57	41.286	41.120	31.956	1.00	30.20	A	N
ATOM	169	CA	LEU	57	40.836	42.404	31.437	1.00	29.43	A	C
ATOM	170	CB	LEU	57	42.022	43.233	30.934	1.00	30.04	A	C
ATOM	171	CG	LEU	57	43.230	43.474	31.844	1.00	32.13	A	C
ATOM	172	CD1	LEU	57	44.123	44.524	31.194	1.00	29.05	A	C
ATOM	173	CD2	LEU	57	42.777	43.949	33.230	1.00	34.11	A	C
ATOM	174	C	LEU	57	39.911	42.132	30.271	1.00	28.16	A	C
ATOM	175	O	LEU	57	39.668	40.980	29.914	1.00	28.60	A	O
ATOM	176	N	TYR	58	39.394	43.196	29.676	1.00	26.69	A	N
ATOM	177	CA	TYR	58	38.530	43.050	28.518	1.00	25.82	A	C
ATOM	178	CB	TYR	58	37.071	42.890	28.934	1.00	25.51	A	C
ATOM	179	CG	TYR	58	36.195	42.420	27.797	1.00	26.86	A	C
ATOM	180	CD1	TYR	58	36.051	41.062	27.514	1.00	26.92	A	C
ATOM	181	CE1	TYR	58	35.294	40.631	26.429	1.00	26.28	A	C
ATOM	182	CD2	TYR	58	35.557	43.333	26.965	1.00	25.26	A	C
ATOM	183	CE2	TYR	58	34.803	42.911	25.882	1.00	26.13	A	C
ATOM	184	CZ	TYR	58	34.675	41.564	25.619	1.00	25.74	A	C
ATOM	185	OH	TYR	58	33.928	41.160	24.541	1.00	27.32	A	O
ATOM	186	C	TYR	58	38.681	44.288	27.647	1.00	24.95	A	C
ATOM	187	O	TYR	58	37.837	45.176	27.680	1.00	24.68	A	O
ATOM	188	N	SER	59	39.763	44.338	26.876	1.00	24.05	A	N
ATOM	189	CA	SER	59	40.037	45.470	25.997	1.00	24.31	A	C
ATOM	190	CB	SER	59	41.547	45.657	25.817	1.00	24.38	A	C
ATOM	191	OG	SER	59	42.187	45.931	27.051	1.00	28.99	A	O
ATOM	192	C	SER	59	39.405	45.294	24.628	1.00	23.54	A	C
ATOM	193	O	SER	59	39.795	44.420	23.860	1.00	24.84	A	O
ATOM	194	N	LEU	60	38.430	46.135	24.319	1.00	23.51	A	N
ATOM	195	CA	LEU	60	37.765	46.073	23.031	1.00	22.96	A	C

(Continued)

FIG. 4 - 5

ATOM	196	CB	LEU	60	36.256	45.910	23.228	1.00	21.27	A	C
ATOM	197	CG	LEU	60	35.528	46.977	24.048	1.00	20.80	A	C
ATOM	198	CD1	LEU	60	35.373	48.227	23.208	1.00	19.95	A	C
ATOM	199	CD2	LEU	60	34.159	46.466	24.488	1.00	18.91	A	C
ATOM	200	C	LEU	60	38.072	47.356	22.279	1.00	23.42	A	C
ATOM	201	O	LEU	60	38.507	48.340	22.869	1.00	23.10	A	O
ATOM	202	N	ARG	61	37.862	47.339	20.971	1.00	25.94	A	N
ATOM	203	CA	ARG	61	38.102	48.522	20.153	1.00	27.08	A	C
ATOM	204	CB	ARG	61	39.364	48.323	19.299	1.00	29.17	A	C
ATOM	205	CG	ARG	61	40.545	47.713	20.076	1.00	34.91	A	C
ATOM	206	CD	ARG	61	41.790	48.612	20.088	1.00	38.62	A	C
ATOM	207	NE	ARG	61	42.423	48.715	18.772	1.00	41.15	A	N
ATOM	208	CZ	ARG	61	43.337	47.871	18.299	1.00	41.78	A	C
ATOM	209	NH1	ARG	61	43.754	46.848	19.033	1.00	40.61	A	N
ATOM	210	NH2	ARG	61	43.821	48.042	17.076	1.00	43.39	A	N
ATOM	211	C	ARG	61	36.869	48.724	19.270	1.00	25.92	A	C
ATOM	212	O	ARG	61	36.616	47.939	18.358	1.00	26.31	A	O
ATOM	213	N	TRP	62	36.087	49.758	19.568	1.00	24.63	A	N
ATOM	214	CA	TRP	62	34.883	50.050	18.794	1.00	24.74	A	C
ATOM	215	CB	TRP	62	34.092	51.207	19.420	1.00	23.22	A	C
ATOM	216	CG	TRP	62	33.472	50.900	20.741	1.00	23.78	A	C
ATOM	217	CD2	TRP	62	32.302	50.110	20.972	1.00	23.80	A	C
ATOM	218	CE2	TRP	62	32.082	50.085	22.368	1.00	23.69	A	C
ATOM	219	CE3	TRP	62	31.416	49.419	20.133	1.00	22.71	A	C
ATOM	220	CD1	TRP	62	33.906	51.310	21.972	1.00	24.25	A	C
ATOM	221	NE1	TRP	62	33.075	50.824	22.955	1.00	23.12	A	N
ATOM	222	CZ2	TRP	62	31.013	49.396	22.945	1.00	23.91	A	C
ATOM	223	CZ3	TRP	62	30.357	48.736	20.703	1.00	24.08	A	C
ATOM	224	CH2	TRP	62	30.162	48.730	22.100	1.00	25.02	A	C
ATOM	225	C	TRP	62	35.241	50.427	17.365	1.00	25.48	A	C
ATOM	226	O	TRP	62	35.980	51.380	17.138	1.00	27.15	A	O
ATOM	227	N	ILE	63	34.722	49.682	16.398	1.00	26.16	A	N
ATOM	228	CA	ILE	63	35.000	49.991	15.003	1.00	25.88	A	C
ATOM	229	CB	ILE	63	35.312	48.727	14.180	1.00	25.95	A	C
ATOM	230	CG2	ILE	63	36.494	48.000	14.783	1.00	27.39	A	C
ATOM	231	CG1	ILE	63	34.092	47.810	14.138	1.00	24.70	A	C
ATOM	232	CD1	ILE	63	34.246	46.666	13.174	1.00	25.35	A	C
ATOM	233	C	ILE	63	33.788	50.680	14.400	1.00	26.00	A	C
ATOM	234	O	ILE	63	33.803	51.075	13.239	1.00	26.14	A	O
ATOM	235	N	SER	64	32.738	50.812	15.202	1.00	26.48	A	N
ATOM	236	CA	SER	64	31.510	51.470	14.768	1.00	28.43	A	C
ATOM	237	CB	SER	64	30.764	50.603	13.754	1.00	27.24	A	C
ATOM	238	OG	SER	64	30.181	49.481	14.392	1.00	28.00	A	O
ATOM	239	C	SER	64	30.597	51.727	15.964	1.00	29.08	A	C
ATOM	240	O	SER	64	31.008	51.606	17.119	1.00	26.71	A	O
ATOM	241	N	ASP	65	29.348	52.067	15.678	1.00	31.29	A	N
ATOM	242	CA	ASP	65	28.382	52.336	16.732	1.00	34.90	A	C
ATOM	243	CB	ASP	65	27.384	53.397	16.269	1.00	37.81	A	C
ATOM	244	CG	ASP	65	26.515	53.905	17.395	1.00	41.52	A	C

(Continued)

FIG. 4-6

ATOM	245	OD1	ASP	65	27.070	54.235	18.465	1.00	43.44	A O
ATOM	246	OD2	ASP	65	25.281	53.986	17.211	1.00	44.76	A O
ATOM	247	C	ASP	65	27.640	51.064	17.128	1.00	34.55	A C
ATOM	248	O	ASP	65	26.753	51.091	17.981	1.00	33.76	A O
ATOM	249	N	HIS	66	28.023	49.946	16.520	1.00	34.31	A N
ATOM	250	CA	HIS	66	27.369	48.679	16.807	1.00	35.30	A C
ATOM	251	CB	HIS	66	26.555	48.229	15.589	1.00	37.74	A C
ATOM	252	CG	HIS	66	25.648	49.288	15.052	1.00	42.72	A C
ATOM	253	CD2	HIS	66	24.298	49.393	15.056	1.00	44.80	A C
ATOM	254	ND1	HIS	66	26.121	50.438	14.455	1.00	45.16	A N
ATOM	255	CE1	HIS	66	25.101	51.206	14.114	1.00	46.24	A C
ATOM	256	NE2	HIS	66	23.984	50.595	14.468	1.00	46.79	A N
ATOM	257	C	HIS	66	28.314	47.555	17.223	1.00	33.78	A C
ATOM	258	O	HIS	66	27.966	46.736	18.068	1.00	34.67	A O
ATOM	259	N	GLU	67	29.502	47.501	16.635	1.00	31.93	A N
ATOM	260	CA	GLU	67	30.432	46.434	16.979	1.00	31.45	A C
ATOM	261	CB	GLU	67	30.557	45.463	15.801	1.00	31.46	A C
ATOM	262	CG	GLU	67	30.356	46.103	14.447	1.00	33.17	A C
ATOM	263	CD	GLU	67	30.357	45.092	13.311	1.00	35.48	A C
ATOM	264	OE1	GLU	67	29.607	44.090	13.394	1.00	32.44	A O
ATOM	265	OE2	GLU	67	31.104	45.306	12.329	1.00	36.60	A O
ATOM	266	C	GLU	67	31.818	46.866	17.442	1.00	29.97	A C
ATOM	267	O	GLU	67	32.240	48.003	17.241	1.00	30.44	A O
ATOM	268	N	TYR	68	32.513	45.940	18.088	1.00	29.07	A N
ATOM	269	CA	TYR	68	33.863	46.190	18.567	1.00	28.87	A C
ATOM	270	CB	TYR	68	33.866	46.447	20.073	1.00	26.31	A C
ATOM	271	CG	TYR	68	33.307	45.324	20.917	1.00	23.19	A C
ATOM	272	CD1	TYR	68	32.000	45.376	21.400	1.00	21.93	A C
ATOM	273	CE1	TYR	68	31.497	44.372	22.231	1.00	21.10	A C
ATOM	274	CD2	TYR	68	34.102	44.232	21.281	1.00	23.23	A C
ATOM	275	CE2	TYR	68	33.610	43.225	22.110	1.00	22.67	A C
ATOM	276	CZ	TYR	68	32.304	43.305	22.582	1.00	22.02	A C
ATOM	277	OH	TYR	68	31.810	42.321	23.403	1.00	22.72	A O
ATOM	278	C	TYR	68	34.747	44.987	18.256	1.00	29.51	A C
ATOM	279	O	TYR	68	34.244	43.885	18.028	1.00	28.32	A O
ATOM	280	N	LEU	69	36.058	45.202	18.233	1.00	29.87	A N
ATOM	281	CA	LEU	69	36.986	44.115	17.963	1.00	32.20	A C
ATOM	282	CB	LEU	69	38.154	44.602	17.106	1.00	30.73	A C
ATOM	283	CG	LEU	69	37.761	45.065	15.700	1.00	30.62	A C
ATOM	284	CD1	LEU	69	38.978	45.629	14.963	1.00	29.98	A C
ATOM	285	CD2	LEU	69	37.164	43.891	14.943	1.00	30.17	A C
ATOM	286	C	LEU	69	37.492	43.588	19.292	1.00	34.73	A C
ATOM	287	O	LEU	69	37.474	44.305	20.294	1.00	34.80	A O
ATOM	288	N	TYR	70	37.927	42.334	19.305	1.00	37.39	A N
ATOM	289	CA	TYR	70	38.423	41.726	20.528	1.00	42.16	A C
ATOM	290	CB	TYR	70	37.251	41.359	21.444	1.00	42.66	A C
ATOM	291	CG	TYR	70	37.689	40.866	22.799	1.00	43.06	A C
ATOM	292	CD1	TYR	70	38.400	41.697	23.657	1.00	43.56	A C
ATOM	293	CE1	TYR	70	38.837	41.253	24.892	1.00	44.69	A C

(Continued)

FIG. 4-7

ATOM	294	CD2	TYR	70	37.421	39.563	23.213	1.00	43.93	A	C
ATOM	295	CE2	TYR	70	37.853	39.104	24.452	1.00	44.83	A	C
ATOM	296	CZ	TYR	70	38.563	39.959	25.286	1.00	45.17	A	C
ATOM	297	OH	TYR	70	39.004	39.532	26.516	1.00	47.21	A	O
ATOM	298	C	TYR	70	39.249	40.480	20.240	1.00	45.46	A	C
ATOM	299	O	TYR	70	38.976	39.752	19.287	1.00	46.31	A	O
ATOM	300	N	LYS	71	40.254	40.231	21.072	1.00	49.93	A	N
ATOM	301	CA	LYS	71	41.113	39.064	20.895	1.00	54.71	A	C
ATOM	302	CB	LYS	71	42.580	39.460	21.054	1.00	54.14	A	C
ATOM	303	CG	LYS	71	43.075	40.455	20.031	1.00	56.37	A	C
ATOM	304	CD	LYS	71	44.559	40.712	20.226	1.00	58.61	A	C
ATOM	305	CE	LYS	71	45.126	41.628	19.159	1.00	58.78	A	C
ATOM	306	NZ	LYS	71	46.590	41.830	19.361	1.00	60.82	A	N
ATOM	307	C	LYS	71	40.790	37.952	21.889	1.00	57.38	A	C
ATOM	308	O	LYS	71	41.109	38.062	23.075	1.00	58.38	A	O
ATOM	309	N	GLN	72	40.158	36.884	21.406	1.00	60.30	A	N
ATOM	310	CA	GLN	72	39.816	35.750	22.261	1.00	63.23	A	C
ATOM	311	CB	GLN	72	38.902	34.775	21.526	1.00	64.07	A	C
ATOM	312	CG	GLN	72	38.313	33.695	22.417	1.00	65.84	A	C
ATOM	313	CD	GLN	72	37.270	34.240	23.375	1.00	66.33	A	C
ATOM	314	OE1	GLN	72	36.251	34.790	22.952	1.00	67.19	A	O
ATOM	315	NE2	GLN	72	37.519	34.092	24.671	1.00	66.80	A	N
ATOM	316	C	GLN	72	41.122	35.049	22.607	1.00	65.34	A	C
ATOM	317	O	GLN	72	41.563	35.058	23.760	1.00	67.00	A	O
ATOM	318	N	GLU	73	41.736	34.442	21.597	1.00	66.09	A	N
ATOM	319	CA	GLU	73	43.012	33.763	21.775	1.00	67.12	A	C
ATOM	320	CB	GLU	73	43.008	32.420	21.046	1.00	68.53	A	C
ATOM	321	CG	GLU	73	41.974	31.433	21.570	1.00	71.35	A	C
ATOM	322	CD	GLU	73	42.223	31.026	23.012	1.00	72.71	A	C
ATOM	323	OE1	GLU	73	41.491	30.147	23.517	1.00	73.51	A	O
ATOM	324	OE2	GLU	73	43.147	31.585	23.643	1.00	74.16	A	O
ATOM	325	C	GLU	73	44.076	34.681	21.184	1.00	66.83	A	C
ATOM	326	O	GLU	73	44.563	35.592	21.857	1.00	67.65	A	O
ATOM	327	N	ASN	74	44.430	34.442	19.924	1.00	65.38	A	N
ATOM	328	CA	ASN	74	45.411	35.273	19.236	1.00	63.38	A	C
ATOM	329	CB	ASN	74	46.661	34.466	18.889	1.00	64.38	A	C
ATOM	330	CG	ASN	74	47.654	34.422	20.034	1.00	66.10	A	C
ATOM	331	OD1	ASN	74	48.128	35.463	20.496	1.00	65.51	A	O
ATOM	332	ND2	ASN	74	47.973	33.216	20.503	1.00	66.62	A	N
ATOM	333	C	ASN	74	44.794	35.859	17.977	1.00	61.55	A	C
ATOM	334	O	ASN	74	45.384	36.714	17.318	1.00	62.15	A	O
ATOM	335	N	ASN	75	43.597	35.390	17.647	1.00	58.67	A	N
ATOM	336	CA	ASN	75	42.888	35.886	16.481	1.00	55.82	A	C
ATOM	337	CB	ASN	75	42.023	34.785	15.871	1.00	57.81	A	C
ATOM	338	CG	ASN	75	41.410	33.887	16.916	1.00	58.63	A	C
ATOM	339	OD1	ASN	75	40.857	34.358	17.909	1.00	59.69	A	O
ATOM	340	ND2	ASN	75	41.500	32.580	16.697	1.00	58.92	A	N
ATOM	341	C	ASN	75	42.017	37.045	16.918	1.00	52.82	A	C
ATOM	342	O	ASN	75	41.630	37.135	18.081	1.00	53.60	A	O

(Continued)

FIG. 4-8

ATOM	343	N	ILE	76	41.715	37.937	15.985	1.00	49.11	A N
ATOM	344	CA	ILE	76	40.893	39.091	16.294	1.00	44.67	A C
ATOM	345	CB	ILE	76	41.343	40.317	15.502	1.00	44.26	A C
ATOM	346	CG2	ILE	76	40.565	41.533	15.956	1.00	43.37	A C
ATOM	347	CG1	ILE	76	42.841	40.547	15.716	1.00	45.27	A C
ATOM	348	CD1	ILE	76	43.435	41.647	14.844	1.00	45.53	A C
ATOM	349	C	ILE	76	39.446	38.786	15.964	1.00	42.80	A C
ATOM	350	O	ILE	76	39.127	38.322	14.868	1.00	41.85	A O
ATOM	351	N	LEU	77	38.574	39.045	16.930	1.00	40.36	A N
ATOM	352	CA	LEU	77	37.151	38.801	16.772	1.00	37.65	A C
ATOM	353	CB	LEU	77	36.636	37.948	17.933	1.00	36.65	A C
ATOM	354	CG	LEU	77	37.363	36.642	18.264	1.00	35.22	A C
ATOM	355	CD1	LEU	77	36.600	35.926	19.361	1.00	34.43	A C
ATOM	356	CD2	LEU	77	37.459	35.756	17.039	1.00	34.38	A C
ATOM	357	C	LEU	77	36.365	40.107	16.730	1.00	35.91	A C
ATOM	358	O	LEU	77	36.801	41.123	17.269	1.00	35.03	A O
ATOM	359	N	VAL	78	35.212	40.069	16.070	1.00	34.19	A N
ATOM	360	CA	VAL	78	34.330	41.226	15.981	1.00	31.96	A C
ATOM	361	CB	VAL	78	34.078	41.628	14.509	1.00	31.90	A C
ATOM	362	CG1	VAL	78	33.612	40.420	13.704	1.00	31.34	A C
ATOM	363	CG2	VAL	78	33.048	42.747	14.442	1.00	31.56	A C
ATOM	364	C	VAL	78	33.011	40.838	16.667	1.00	31.15	A C
ATOM	365	O	VAL	78	32.404	39.819	16.336	1.00	30.46	A O
ATOM	366	N	PHE	79	32.582	41.643	17.636	1.00	29.90	A N
ATOM	367	CA	PHE	79	31.358	41.357	18.379	1.00	28.93	A C
ATOM	368	CB	PHE	79	31.618	41.420	19.888	1.00	29.14	A C
ATOM	369	CG	PHE	79	32.357	40.238	20.440	1.00	28.39	A C
ATOM	370	CD1	PHE	79	33.704	40.051	20.165	1.00	28.20	A C
ATOM	371	CD2	PHE	79	31.701	39.314	21.243	1.00	27.22	A C
ATOM	372	CE1	PHE	79	34.391	38.956	20.684	1.00	28.13	A C
ATOM	373	CE2	PHE	79	32.374	38.219	21.764	1.00	27.53	A C
ATOM	374	CZ	PHE	79	33.725	38.040	21.483	1.00	27.59	A C
ATOM	375	C	PHE	79	30.186	42.281	18.091	1.00	29.06	A C
ATOM	376	O	PHE	79	30.354	43.487	17.912	1.00	28.29	A O
ATOM	377	N	ASN	80	28.990	41.704	18.058	1.00	27.80	A N
ATOM	378	CA	ASN	80	27.791	42.499	17.864	1.00	27.95	A C
ATOM	379	CB	ASN	80	26.681	41.670	17.209	1.00	27.03	A C
ATOM	380	CG	ASN	80	25.354	42.412	17.160	1.00	27.26	A C
ATOM	381	OD1	ASN	80	24.679	42.587	18.182	1.00	26.87	A O
ATOM	382	ND2	ASN	80	24.980	42.866	15.974	1.00	26.94	A N
ATOM	383	C	ASN	80	27.405	42.874	19.289	1.00	28.06	A C
ATOM	384	O	ASN	80	26.991	42.024	20.066	1.00	28.61	A O
ATOM	385	N	ALA	81	27.566	44.140	19.642	1.00	28.12	A N
ATOM	386	CA	ALA	81	27.250	44.579	20.991	1.00	29.16	A C
ATOM	387	CB	ALA	81	27.503	46.075	21.119	1.00	27.93	A C
ATOM	388	C	ALA	81	25.818	44.254	21.413	1.00	31.04	A C
ATOM	389	O	ALA	81	25.582	43.769	22.527	1.00	30.16	A O
ATOM	390	N	GLU	82	24.870	44.506	20.516	1.00	32.39	A N
ATOM	391	CA	GLU	82	23.461	44.282	20.809	1.00	34.46	A C

(Continued)

FIG. 4 - 9

ATOM	392	CB	GLU	82	22.602	44.794	19.655	1.00	36.97	A C
ATOM	393	CG	GLU	82	21.115	44.827	19.968	1.00	40.49	A C
ATOM	394	CD	GLU	82	20.313	45.538	18.894	1.00	44.05	A C
ATOM	395	OE1	GLU	82	20.343	45.087	17.726	1.00	45.13	A O
ATOM	396	OE2	GLU	82	19.652	46.551	19.220	1.00	45.61	A O
ATOM	397	C	GLU	82	23.042	42.853	21.153	1.00	33.95	A C
ATOM	398	O	GLU	82	22.055	42.662	21.864	1.00	32.29	A O
ATOM	399	N	TYR	83	23.777	41.857	20.666	1.00	33.23	A N
ATOM	400	CA	TYR	83	23.423	40.468	20.947	1.00	33.39	A C
ATOM	401	CB	TYR	83	22.846	39.810	19.686	1.00	34.54	A C
ATOM	402	CG	TYR	83	21.690	40.594	19.109	1.00	34.80	A C
ATOM	403	CD1	TYR	83	20.558	40.859	19.878	1.00	35.22	A C
ATOM	404	CE1	TYR	83	19.527	41.657	19.396	1.00	36.27	A C
ATOM	405	CD2	TYR	83	21.759	41.139	17.828	1.00	35.71	A C
ATOM	406	CE2	TYR	83	20.731	41.940	17.331	1.00	37.42	A C
ATOM	407	CZ	TYR	83	19.619	42.200	18.125	1.00	37.70	A C
ATOM	408	OH	TYR	83	18.624	43.044	17.675	1.00	37.69	A O
ATOM	409	C	TYR	83	24.582	39.644	21.494	1.00	33.19	A C
ATOM	410	O	TYR	83	24.396	38.511	21.934	1.00	32.91	A O
ATOM	411	N	GLY	84	25.777	40.217	21.476	1.00	33.53	A N
ATOM	412	CA	GLY	84	26.933	39.513	21.995	1.00	33.40	A C
ATOM	413	C	GLY	84	27.454	38.395	21.114	1.00	33.92	A C
ATOM	414	O	GLY	84	28.329	37.639	21.530	1.00	33.21	A O
ATOM	415	N	ASN	85	26.918	38.269	19.904	1.00	35.26	A N
ATOM	416	CA	ASN	85	27.388	37.233	18.993	1.00	37.43	A C
ATOM	417	CB	ASN	85	26.258	36.780	18.072	1.00	38.34	A C
ATOM	418	CG	ASN	85	25.764	37.878	17.166	1.00	40.02	A C
ATOM	419	OD1	ASN	85	25.694	39.040	17.561	1.00	39.96	A O
ATOM	420	ND2	ASN	85	25.394	37.496	15.950	1.00	41.91	A N
ATOM	421	C	ASN	85	28.556	37.794	18.188	1.00	38.80	A C
ATOM	422	O	ASN	85	28.687	39.011	18.035	1.00	40.05	A O
ATOM	423	N	SER	86	29.410	36.920	17.670	1.00	39.14	A N
ATOM	424	CA	SER	86	30.565	37.393	16.926	1.00	39.30	A C
ATOM	425	CB	SER	86	31.723	37.587	17.895	1.00	38.90	A C
ATOM	426	OG	SER	86	32.041	36.356	18.515	1.00	35.77	A O
ATOM	427	C	SER	86	31.023	36.482	15.798	1.00	39.94	A C
ATOM	428	O	SER	86	30.287	35.622	15.323	1.00	41.15	A O
ATOM	429	N	SER	87	32.264	36.701	15.382	1.00	40.59	A N
ATOM	430	CA	SER	87	32.916	35.929	14.333	1.00	40.98	A C
ATOM	431	CB	SER	87	32.152	36.053	13.010	1.00	39.16	A C
ATOM	432	OG	SER	87	31.727	37.376	12.789	1.00	39.90	A O
ATOM	433	C	SER	87	34.353	36.433	14.194	1.00	41.10	A C
ATOM	434	O	SER	87	34.691	37.517	14.682	1.00	41.07	A O
ATOM	435	N	VAL	88	35.206	35.646	13.548	1.00	41.07	A N
ATOM	436	CA	VAL	88	36.596	36.043	13.402	1.00	41.43	A C
ATOM	437	CB	VAL	88	37.502	34.836	13.114	1.00	41.29	A C
ATOM	438	CG1	VAL	88	38.949	35.295	13.013	1.00	41.30	A C
ATOM	439	CG2	VAL	88	37.361	33.808	14.222	1.00	40.28	A C
ATOM	440	C	VAL	88	36.827	37.096	12.331	1.00	41.63	A C

(Continued)

FIG. 4-10

ATOM	441	O	VAL	88	36.548	36.885	11.154	1.00 41.38	A	O
ATOM	442	N	PHE	89	37.343	38.238	12.767	1.00 42.23	A	N
ATOM	443	CA	PHE	89	37.641	39.347	11.880	1.00 42.51	A	C
ATOM	444	CB	PHE	89	37.769	40.637	12.699	1.00 40.84	A	C
ATOM	445	CG	PHE	89	37.990	41.865	11.870	1.00 39.96	A	C
ATOM	446	CD1	PHE	89	39.217	42.103	11.265	1.00 39.62	A	C
ATOM	447	CD2	PHE	89	36.963	42.778	11.678	1.00 40.08	A	C
ATOM	448	CE1	PHE	89	39.415	43.231	10.480	1.00 39.60	A	C
ATOM	449	CE2	PHE	89	37.154	43.911	10.894	1.00 39.87	A	C
ATOM	450	CZ	PHE	89	38.381	44.135	10.295	1.00 39.50	A	C
ATOM	451	C	PHE	89	38.956	39.021	11.186	1.00 43.57	A	C
ATOM	452	O	PHE	89	39.156	39.335	10.019	1.00 43.51	A	O
ATOM	453	N	LEU	90	39.851	38.376	11.921	1.00 45.92	A	N
ATOM	454	CA	LEU	90	41.143	38.001	11.380	1.00 48.60	A	C
ATOM	455	CB	LEU	90	42.071	39.213	11.366	1.00 48.66	A	C
ATOM	456	CG	LEU	90	43.033	39.305	10.184	1.00 49.47	A	C
ATOM	457	CD1	LEU	90	42.236	39.408	8.889	1.00 50.17	A	C
ATOM	458	CD2	LEU	90	43.933	40.515	10.346	1.00 49.94	A	C
ATOM	459	C	LEU	90	41.718	36.907	12.267	1.00 50.84	A	C
ATOM	460	O	LEU	90	42.063	37.159	13.421	1.00 50.91	A	O
ATOM	461	N	GLU	91	41.815	35.694	11.726	1.00 53.65	A	N
ATOM	462	CA	GLU	91	42.335	34.559	12.482	1.00 56.17	A	C
ATOM	463	CB	GLU	91	41.817	33.243	11.891	1.00 58.45	A	C
ATOM	464	CG	GLU	91	42.048	33.070	10.403	1.00 60.92	A	C
ATOM	465	CD	GLU	91	41.454	31.774	9.879	1.00 62.39	A	C
ATOM	466	OE1	GLU	91	41.875	30.694	10.350	1.00 63.50	A	O
ATOM	467	OE2	GLU	91	40.566	31.833	9.001	1.00 63.04	A	O
ATOM	468	C	GLU	91	43.855	34.521	12.588	1.00 56.96	A	C
ATOM	469	O	GLU	91	44.572	34.841	11.641	1.00 56.93	A	O
ATOM	470	N	ASN	92	44.322	34.117	13.766	1.00 57.64	A	N
ATOM	471	CA	ASN	92	45.738	34.028	14.100	1.00 58.91	A	C
ATOM	472	CB	ASN	92	45.881	33.389	15.477	1.00 59.59	A	C
ATOM	473	CG	ASN	92	45.129	32.082	15.585	1.00 59.68	A	C
ATOM	474	OD1	ASN	92	45.189	31.248	14.684	1.00 59.97	A	O
ATOM	475	ND2	ASN	92	44.420	31.894	16.691	1.00 61.11	A	N
ATOM	476	C	ASN	92	46.622	33.271	13.111	1.00 59.58	A	C
ATOM	477	O	ASN	92	47.806	33.061	13.370	1.00 59.03	A	O
ATOM	478	N	SER	93	46.059	32.862	11.984	1.00 60.45	A	N
ATOM	479	CA	SER	93	46.828	32.127	10.991	1.00 61.76	A	C
ATOM	480	CB	SER	93	45.978	30.985	10.427	1.00 62.43	A	C
ATOM	481	OG	SER	93	46.714	30.198	9.507	1.00 64.10	A	O
ATOM	482	C	SER	93	47.296	33.030	9.853	1.00 62.23	A	C
ATOM	483	O	SER	93	48.314	32.765	9.213	1.00 62.82	A	O
ATOM	484	N	THR	94	46.552	34.103	9.618	1.00 62.37	A	N
ATOM	485	CA	THR	94	46.852	35.036	8.541	1.00 62.69	A	C
ATOM	486	CB	THR	94	45.982	36.298	8.659	1.00 63.25	A	C
ATOM	487	OG1	THR	94	46.469	37.302	7.759	1.00 63.59	A	O
ATOM	488	CG2	THR	94	46.003	36.821	10.080	1.00 64.14	A	C
ATOM	489	C	THR	94	48.306	35.464	8.377	1.00 62.28	A	C

(Continued)

FIG. 4-11

ATOM	490	O	THR	94	48.882	35.295	7.303	1.00	61.92	A	O
ATOM	491	N	PHE	95	48.908	36.013	9.426	1.00	62.57	A	N
ATOM	492	CA	PHE	95	50.290	36.473	9.322	1.00	63.04	A	C
ATOM	493	CB	PHE	95	50.414	37.889	9.897	1.00	61.98	A	C
ATOM	494	CG	PHE	95	49.456	38.869	9.289	1.00	61.01	A	C
ATOM	495	CD1	PHE	95	48.248	39.155	9.911	1.00	60.97	A	C
ATOM	496	CD2	PHE	95	49.742	39.473	8.073	1.00	60.73	A	C
ATOM	497	CE1	PHE	95	47.337	40.026	9.330	1.00	60.46	A	C
ATOM	498	CE2	PHE	95	48.838	40.343	7.483	1.00	60.09	A	C
ATOM	499	CZ	PHE	95	47.633	40.621	8.113	1.00	61.07	A	C
ATOM	500	C	PHE	95	51.346	35.571	9.956	1.00	63.20	A	C
ATOM	501	O	PHE	95	52.178	36.035	10.736	1.00	63.66	A	O
ATOM	502	N	ASP	96	51.323	34.288	9.611	1.00	63.37	A	N
ATOM	503	CA	ASP	96	52.298	33.347	10.149	1.00	64.05	A	C
ATOM	504	CB	ASP	96	51.771	31.913	10.044	1.00	65.11	A	C
ATOM	505	CG	ASP	96	50.747	31.589	11.115	1.00	65.73	A	C
ATOM	506	OD1	ASP	96	49.758	32.342	11.240	1.00	66.41	A	O
ATOM	507	OD2	ASP	96	50.929	30.580	11.829	1.00	65.32	A	O
ATOM	508	C	ASP	96	53.621	33.470	9.399	1.00	63.82	A	C
ATOM	509	O	ASP	96	54.696	33.433	10.001	1.00	64.05	A	O
ATOM	510	N	GLU	97	53.540	33.619	8.083	1.00	62.95	A	N
ATOM	511	CA	GLU	97	54.740	33.754	7.271	1.00	62.73	A	C
ATOM	512	CB	GLU	97	54.596	32.964	5.965	1.00	65.91	A	C
ATOM	513	CG	GLU	97	54.954	31.478	6.064	1.00	68.84	A	C
ATOM	514	CD	GLU	97	53.945	30.657	6.850	1.00	70.64	A	C
ATOM	515	OE1	GLU	97	54.160	29.432	6.988	1.00	71.38	A	O
ATOM	516	OE2	GLU	97	52.939	31.228	7.325	1.00	71.80	A	O
ATOM	517	C	GLU	97	55.039	35.220	6.963	1.00	60.82	A	C
ATOM	518	O	GLU	97	55.462	35.557	5.857	1.00	60.31	A	O
ATOM	519	N	PHE	98	54.818	36.084	7.952	1.00	58.68	A	N
ATOM	520	CA	PHE	98	55.067	37.513	7.797	1.00	55.93	A	C
ATOM	521	CB	PHE	98	54.200	38.319	8.765	1.00	55.47	A	C
ATOM	522	CG	PHE	98	54.272	39.801	8.542	1.00	54.84	A	C
ATOM	523	CD1	PHE	98	53.712	40.372	7.404	1.00	53.07	A	C
ATOM	524	CD2	PHE	98	54.931	40.624	9.450	1.00	53.89	A	C
ATOM	525	CE1	PHE	98	53.808	41.743	7.173	1.00	53.28	A	C
ATOM	526	CE2	PHE	98	55.032	41.997	9.226	1.00	53.18	A	C
ATOM	527	CZ	PHE	98	54.470	42.556	8.087	1.00	52.22	A	C
ATOM	528	C	PHE	98	56.536	37.820	8.060	1.00	54.61	A	C
ATOM	529	O	PHE	98	57.041	38.878	7.686	1.00	53.80	A	O
ATOM	530	N	GLY	99	57.215	36.885	8.713	1.00	53.53	A	N
ATOM	531	CA	GLY	99	58.624	37.061	9.004	1.00	52.08	A	C
ATOM	532	C	GLY	99	58.908	38.188	9.972	1.00	51.18	A	C
ATOM	533	O	GLY	99	60.037	38.673	10.051	1.00	51.30	A	O
ATOM	534	N	HIS	100	57.884	38.607	10.706	1.00	50.21	A	N
ATOM	535	CA	HIS	100	58.026	39.681	11.686	1.00	49.15	A	C
ATOM	536	CB	HIS	100	57.810	41.049	11.028	1.00	48.84	A	C
ATOM	537	CG	HIS	100	58.850	41.410	10.014	1.00	49.22	A	C
ATOM	538	CD2	HIS	100	58.759	41.613	8.679	1.00	49.42	A	C

(Continued)

FIG. 4-12

ATOM	539	ND1	HIS	100	60.170	41.627	10.346	1.00	49.70	A	N
ATOM	540	CE1	HIS	100	60.848	41.951	9.259	1.00	49.10	A	C
ATOM	541	NE2	HIS	100	60.015	41.949	8.234	1.00	50.14	A	N
ATOM	542	C	HIS	100	57.011	39.511	12.810	1.00	48.06	A	C
ATOM	543	O	HIS	100	55.920	38.977	12.602	1.00	47.18	A	O
ATOM	544	N	SER	101	57.377	39.958	14.005	1.00	46.66	A	N
ATOM	545	CA	SER	101	56.467	39.878	15.136	1.00	45.88	A	C
ATOM	546	CB	SER	101	57.247	39.802	16.446	1.00	47.41	A	C
ATOM	547	OG	SER	101	58.118	38.685	16.447	1.00	51.04	A	O
ATOM	548	C	SER	101	55.617	41.142	15.112	1.00	44.53	A	C
ATOM	549	O	SER	101	56.133	42.248	15.282	1.00	44.41	A	O
ATOM	550	N	ILE	102	54.319	40.976	14.877	1.00	41.90	A	N
ATOM	551	CA	ILE	102	53.409	42.109	14.833	1.00	38.95	A	C
ATOM	552	CB	ILE	102	52.106	41.732	14.117	1.00	38.54	A	C
ATOM	553	CG2	ILE	102	51.153	42.926	14.103	1.00	38.18	A	C
ATOM	554	CG1	ILE	102	52.424	41.288	12.686	1.00	37.65	A	C
ATOM	555	CD1	ILE	102	51.243	40.733	11.937	1.00	37.11	A	C
ATOM	556	C	ILE	102	53.104	42.597	16.244	1.00	38.00	A	C
ATOM	557	O	ILE	102	52.441	41.919	17.024	1.00	38.06	A	O
ATOM	558	N	ASN	103	53.601	43.787	16.556	1.00	37.54	A	N
ATOM	559	CA	ASN	103	53.429	44.399	17.867	1.00	36.65	A	C
ATOM	560	CB	ASN	103	54.437	45.530	18.039	1.00	37.69	A	C
ATOM	561	CG	ASN	103	54.219	46.308	19.315	1.00	39.56	A	C
ATOM	562	OD1	ASN	103	54.655	45.891	20.388	1.00	43.00	A	O
ATOM	563	ND2	ASN	103	53.528	47.439	19.211	1.00	38.34	A	N
ATOM	564	C	ASN	103	52.031	44.953	18.116	1.00	35.79	A	C
ATOM	565	O	ASN	103	51.532	44.910	19.237	1.00	35.79	A	O
ATOM	566	N	ASP	104	51.405	45.490	17.078	1.00	34.43	A	N
ATOM	567	CA	ASP	104	50.079	46.067	17.236	1.00	33.27	A	C
ATOM	568	CB	ASP	104	50.200	47.388	17.998	1.00	34.38	A	C
ATOM	569	CG	ASP	104	48.896	47.823	18.618	1.00	34.79	A	C
ATOM	570	OD1	ASP	104	48.916	48.699	19.509	1.00	33.92	A	O
ATOM	571	OD2	ASP	104	47.852	47.289	18.207	1.00	36.80	A	O
ATOM	572	C	ASP	104	49.436	46.281	15.865	1.00	32.32	A	C
ATOM	573	O	ASP	104	50.124	46.326	14.850	1.00	32.03	A	O
ATOM	574	N	TYR	105	48.118	46.405	15.834	1.00	31.15	A	N
ATOM	575	CA	TYR	105	47.421	46.580	14.570	1.00	32.24	A	C
ATOM	576	CB	TYR	105	46.672	45.296	14.223	1.00	34.70	A	C
ATOM	577	CG	TYR	105	45.443	45.088	15.072	1.00	37.73	A	C
ATOM	578	CD1	TYR	105	44.220	45.636	14.698	1.00	37.51	A	C
ATOM	579	CE1	TYR	105	43.098	45.510	15.506	1.00	40.43	A	C
ATOM	580	CD2	TYR	105	45.514	44.395	16.284	1.00	39.06	A	C
ATOM	581	CE2	TYR	105	44.393	44.263	17.103	1.00	40.75	A	C
ATOM	582	CZ	TYR	105	43.191	44.829	16.705	1.00	41.19	A	C
ATOM	583	OH	TYR	105	42.088	44.755	17.519	1.00	44.27	A	O
ATOM	584	C	TYR	105	46.441	47.743	14.638	1.00	31.43	A	C
ATOM	585	O	TYR	105	46.133	48.249	15.715	1.00	30.78	A	O
ATOM	586	N	SER	106	45.940	48.152	13.479	1.00	30.16	A	N
ATOM	587	CA	SER	106	45.000	49.261	13.415	1.00	29.23	A	C

(Continued)

FIG. 4-13

ATOM	588	CB	SER	106	45.762	50.588	13.457	1.00	29.81	A	C
ATOM	589	OG	SER	106	44.924	51.668	13.090	1.00	32.32	A	O
ATOM	590	C	SER	106	44.146	49.187	12.157	1.00	27.65	A	C
ATOM	591	O	SER	106	44.657	49.085	11.051	1.00	28.57	A	O
ATOM	592	N	ILE	107	42.835	49.240	12.331	1.00	28.07	A	N
ATOM	593	CA	ILE	107	41.922	49.171	11.198	1.00	27.70	A	C
ATOM	594	CB	ILE	107	40.648	48.352	11.544	1.00	25.83	A	C
ATOM	595	CG2	ILE	107	39.557	48.620	10.522	1.00	26.35	A	C
ATOM	596	CG1	ILE	107	40.970	46.859	11.551	1.00	25.36	A	C
ATOM	597	CD1	ILE	107	41.980	46.457	12.568	1.00	23.77	A	C
ATOM	598	C	ILE	107	41.502	50.556	10.743	1.00	26.85	A	C
ATOM	599	O	ILE	107	41.178	51.420	11.557	1.00	26.55	A	O
ATOM	600	N	SER	108	41.507	50.757	9.432	1.00	27.57	A	N
ATOM	601	CA	SER	108	41.113	52.035	8.862	1.00	26.94	A	C
ATOM	602	CB	SER	108	41.331	52.033	7.346	1.00	26.30	A	C
ATOM	603	OG	SER	108	40.458	51.119	6.700	1.00	23.63	A	O
ATOM	604	C	SER	108	39.639	52.253	9.169	1.00	27.22	A	C
ATOM	605	O	SER	108	38.857	51.310	9.206	1.00	26.49	A	O
ATOM	606	N	PRO	109	39.241	53.506	9.393	1.00	28.50	A	N
ATOM	607	CD	PRO	109	40.025	54.751	9.302	1.00	29.19	A	C
ATOM	608	CA	PRO	109	37.839	53.794	9.693	1.00	29.39	A	C
ATOM	609	CB	PRO	109	37.745	55.294	9.439	1.00	30.19	A	C
ATOM	610	CG	PRO	109	39.080	55.775	9.899	1.00	28.76	A	C
ATOM	611	C	PRO	109	36.842	52.993	8.852	1.00	29.21	A	C
ATOM	612	O	PRO	109	35.901	52.425	9.391	1.00	30.65	A	O
ATOM	613	N	ASP	110	37.046	52.935	7.540	1.00	29.41	A	N
ATOM	614	CA	ASP	110	36.120	52.202	6.676	1.00	28.98	A	C
ATOM	615	CB	ASP	110	36.241	52.673	5.226	1.00	27.99	A	C
ATOM	616	CG	ASP	110	37.613	52.432	4.648	1.00	27.91	A	C
ATOM	617	OD1	ASP	110	38.226	51.397	4.976	1.00	28.41	A	O
ATOM	618	OD2	ASP	110	38.075	53.274	3.852	1.00	29.14	A	O
ATOM	619	C	ASP	110	36.280	50.685	6.715	1.00	29.06	A	C
ATOM	620	O	ASP	110	35.635	49.971	5.953	1.00	30.84	A	O
ATOM	621	N	GLY	111	37.148	50.196	7.589	1.00	28.25	A	N
ATOM	622	CA	GLY	111	37.349	48.766	7.702	1.00	28.14	A	C
ATOM	623	C	GLY	111	37.890	48.064	6.470	1.00	29.53	A	C
ATOM	624	O	GLY	111	37.856	46.837	6.402	1.00	31.16	A	O
ATOM	625	N	GLN	112	38.405	48.818	5.503	1.00	29.61	A	N
ATOM	626	CA	GLN	112	38.946	48.217	4.287	1.00	29.74	A	C
ATOM	627	CB	GLN	112	38.777	49.171	3.109	1.00	29.94	A	C
ATOM	628	CG	GLN	112	37.336	49.442	2.749	1.00	31.79	A	C
ATOM	629	CD	GLN	112	37.191	50.234	1.465	1.00	33.24	A	C
ATOM	630	OE1	GLN	112	36.075	50.474	1.004	1.00	36.27	A	O
ATOM	631	NE2	GLN	112	38.314	50.644	0.880	1.00	31.73	A	N
ATOM	632	C	GLN	112	40.415	47.813	4.390	1.00	30.31	A	C
ATOM	633	O	GLN	112	40.888	46.971	3.631	1.00	31.75	A	O
ATOM	634	N	PHE	113	41.141	48.418	5.320	1.00	29.82	A	N
ATOM	635	CA	PHE	113	42.551	48.106	5.486	1.00	28.23	A	C
ATOM	636	CB	PHE	113	43.428	49.207	4.900	1.00	24.48	A	C

(Continued)

FIG. 4-14

ATOM	637	CG	PHE	113	43.193	49.467	3.458	1.00	22.98	A	C
ATOM	638	CD1	PHE	113	42.164	50.301	3.052	1.00	20.83	A	C
ATOM	639	CD2	PHE	113	44.010	48.880	2.496	1.00	23.28	A	C
ATOM	640	CE1	PHE	113	41.950	50.552	1.709	1.00	20.79	A	C
ATOM	641	CE2	PHE	113	43.805	49.121	1.150	1.00	22.78	A	C
ATOM	642	CZ	PHE	113	42.771	49.962	0.754	1.00	22.17	A	C
ATOM	643	C	PHE	113	42.919	47.974	6.947	1.00	30.31	A	C
ATOM	644	O	PHE	113	42.234	48.511	7.827	1.00	31.09	A	O
ATOM	645	N	ILE	114	44.013	47.260	7.196	1.00	29.70	A	N
ATOM	646	CA	ILE	114	44.521	47.092	8.542	1.00	30.73	A	C
ATOM	647	CB	ILE	114	44.342	45.642	9.075	1.00	31.72	A	C
ATOM	648	CG2	ILE	114	44.804	44.633	8.042	1.00	33.03	A	C
ATOM	649	CG1	ILE	114	45.128	45.475	10.381	1.00	32.62	A	C
ATOM	650	CD1	ILE	114	45.028	44.092	11.007	1.00	33.60	A	C
ATOM	651	C	ILE	114	46.000	47.457	8.509	1.00	30.59	A	C
ATOM	652	O	ILE	114	46.754	46.974	7.661	1.00	28.76	A	O
ATOM	653	N	LEU	115	46.388	48.343	9.423	1.00	30.68	A	N
ATOM	654	CA	LEU	115	47.759	48.814	9.543	1.00	29.92	A	C
ATOM	655	CB	LEU	115	47.769	50.257	10.053	1.00	30.35	A	C
ATOM	656	CG	LEU	115	49.135	50.941	10.131	1.00	31.72	A	C
ATOM	657	CD1	LEU	115	49.668	51.147	8.718	1.00	33.17	A	C
ATOM	658	CD2	LEU	115	49.018	52.271	10.857	1.00	30.77	A	C
ATOM	659	C	LEU	115	48.481	47.911	10.530	1.00	29.61	A	C
ATOM	660	O	LEU	115	48.127	47.861	11.707	1.00	30.77	A	O
ATOM	661	N	LEU	116	49.484	47.188	10.048	1.00	28.74	A	N
ATOM	662	CA	LEU	116	50.245	46.278	10.891	1.00	28.06	A	C
ATOM	663	CB	LEU	116	50.624	45.023	10.103	1.00	30.07	A	C
ATOM	664	CG	LEU	116	49.450	44.251	9.481	1.00	30.51	A	C
ATOM	665	CD1	LEU	116	49.978	43.171	8.570	1.00	31.10	A	C
ATOM	666	CD2	LEU	116	48.583	43.644	10.573	1.00	30.99	A	C
ATOM	667	C	LEU	116	51.489	46.997	11.363	1.00	28.28	A	C
ATOM	668	O	LEU	116	52.145	47.690	10.591	1.00	30.37	A	O
ATOM	669	N	GLU	117	51.813	46.824	12.634	1.00	27.78	A	N
ATOM	670	CA	GLU	117	52.962	47.484	13.227	1.00	26.58	A	C
ATOM	671	CB	GLU	117	52.476	48.358	14.382	1.00	25.51	A	C
ATOM	672	CG	GLU	117	53.510	49.241	15.036	1.00	23.69	A	C
ATOM	673	CD	GLU	117	52.897	50.076	16.138	1.00	27.72	A	C
ATOM	674	OE1	GLU	117	52.732	49.572	17.268	1.00	29.08	A	O
ATOM	675	OE2	GLU	117	52.552	51.242	15.868	1.00	30.62	A	O
ATOM	676	C	GLU	117	53.997	46.491	13.738	1.00	27.81	A	C
ATOM	677	O	GLU	117	53.666	45.586	14.506	1.00	27.41	A	O
ATOM	678	N	TYR	118	55.247	46.663	13.313	1.00	27.75	A	N
ATOM	679	CA	TYR	118	56.327	45.796	13.765	1.00	29.68	A	C
ATOM	680	CB	TYR	118	56.473	44.586	12.837	1.00	29.52	A	C
ATOM	681	CG	TYR	118	56.819	44.903	11.402	1.00	28.58	A	C
ATOM	682	CD1	TYR	118	55.922	45.572	10.573	1.00	29.31	A	C
ATOM	683	CE1	TYR	118	56.236	45.838	9.239	1.00	28.13	A	C
ATOM	684	CD2	TYR	118	58.040	44.510	10.864	1.00	28.81	A	C
ATOM	685	CE2	TYR	118	58.362	44.769	9.541	1.00	27.91	A	C

(Continued)

FIG. 4-15

ATOM	686	CZ	TYR	118	57.459	45.431	8.735	1.00	28.04	A	C
ATOM	687	OH	TYR	118	57.792	45.681	7.427	1.00	29.86	A	O
ATOM	688	C	TYR	118	57.641	46.572	13.863	1.00	31.53	A	C
ATOM	689	O	TYR	118	57.683	47.763	13.550	1.00	32.24	A	O
ATOM	690	N	ASN	119	58.708	45.903	14.295	1.00	32.40	A	N
ATOM	691	CA	ASN	119	60.008	46.557	14.459	1.00	33.64	A	C
ATOM	692	CB	ASN	119	60.511	47.128	13.131	1.00	35.42	A	C
ATOM	693	CG	ASN	119	61.069	46.066	12.207	1.00	36.36	A	C
ATOM	694	OD1	ASN	119	61.958	45.306	12.584	1.00	37.66	A	O
ATOM	695	ND2	ASN	119	60.560	46.021	10.983	1.00	37.41	A	N
ATOM	696	C	ASN	119	59.875	47.697	15.464	1.00	34.07	A	C
ATOM	697	O	ASN	119	60.548	48.719	15.348	1.00	34.50	A	O
ATOM	698	N	TYR	120	58.996	47.514	16.443	1.00	33.92	A	N
ATOM	699	CA	TYR	120	58.741	48.517	17.472	1.00	33.38	A	C
ATOM	700	CB	TYR	120	57.510	48.097	18.290	1.00	33.40	A	C
ATOM	701	CG	TYR	120	57.290	48.870	19.569	1.00	33.30	A	C
ATOM	702	CD1	TYR	120	58.029	48.582	20.715	1.00	33.37	A	C
ATOM	703	CE1	TYR	120	57.818	49.284	21.902	1.00	34.88	A	C
ATOM	704	CD2	TYR	120	56.333	49.886	19.636	1.00	33.62	A	C
ATOM	705	CE2	TYR	120	56.114	50.596	20.813	1.00	32.73	A	C
ATOM	706	CZ	TYR	120	56.859	50.289	21.944	1.00	35.24	A	C
ATOM	707	OH	TYR	120	56.643	50.977	23.121	1.00	37.51	A	O
ATOM	708	C	TYR	120	59.933	48.772	18.396	1.00	33.12	A	C
ATOM	709	O	TYR	120	60.472	47.849	19.007	1.00	33.80	A	O
ATOM	710	N	VAL	121	60.330	50.038	18.491	1.00	31.69	A	N
ATOM	711	CA	VAL	121	61.441	50.446	19.343	1.00	30.32	A	C
ATOM	712	CB	VAL	121	62.672	50.845	18.504	1.00	30.75	A	C
ATOM	713	CG1	VAL	121	63.853	51.140	19.420	1.00	28.68	A	C
ATOM	714	CG2	VAL	121	63.013	49.736	17.525	1.00	29.00	A	C
ATOM	715	C	VAL	121	61.008	51.645	20.190	1.00	29.83	A	C
ATOM	716	O	VAL	121	60.788	52.738	19.670	1.00	30.47	A	O
ATOM	717	N	LYS	122	60.889	51.434	21.495	1.00	28.18	A	N
ATOM	718	CA	LYS	122	60.464	52.488	22.404	1.00	27.02	A	C
ATOM	719	CB	LYS	122	60.214	51.910	23.799	1.00	23.73	A	C
ATOM	720	CG	LYS	122	59.793	52.954	24.819	1.00	21.38	A	C
ATOM	721	CD	LYS	122	59.573	52.354	26.191	1.00	20.47	A	C
ATOM	722	CE	LYS	122	59.078	53.406	27.174	1.00	19.23	A	C
ATOM	723	NZ	LYS	122	60.062	54.510	27.346	1.00	18.20	A	N
ATOM	724	C	LYS	122	61.460	53.635	22.528	1.00	27.64	A	C
ATOM	725	O	LYS	122	62.658	53.464	22.315	1.00	28.10	A	O
ATOM	726	N	GLN	123	60.947	54.813	22.860	1.00	27.23	A	N
ATOM	727	CA	GLN	123	61.791	55.979	23.071	1.00	27.82	A	C
ATOM	728	CB	GLN	123	61.607	57.034	21.974	1.00	28.29	A	C
ATOM	729	CG	GLN	123	62.537	58.227	22.164	1.00	28.94	A	C
ATOM	730	CD	GLN	123	62.339	59.308	21.131	1.00	29.91	A	C
ATOM	731	OE1	GLN	123	61.218	59.744	20.889	1.00	32.37	A	O
ATOM	732	NE2	GLN	123	63.431	59.761	20.524	1.00	30.94	A	N
ATOM	733	C	GLN	123	61.385	56.545	24.428	1.00	26.89	A	C
ATOM	734	O	GLN	123	61.837	56.036	25.453	1.00	27.03	A	O

(Continued)

FIG. 4-16

ATOM	735	N	TRP	124	60.522	57.564	24.444	1.00	23.89	A	N
ATOM	736	CA	TRP	124	60.081	58.149	25.713	1.00	24.21	A	C
ATOM	737	CB	TRP	124	59.886	59.665	25.572	1.00	23.25	A	C
ATOM	738	CG	TRP	124	61.052	60.357	24.934	1.00	19.79	A	C
ATOM	739	CD2	TRP	124	62.444	60.061	25.127	1.00	19.03	A	C
ATOM	740	CE2	TRP	124	63.175	60.913	24.270	1.00	19.13	A	C
ATOM	741	CE3	TRP	124	63.143	59.157	25.936	1.00	15.51	A	C
ATOM	742	CD1	TRP	124	60.999	61.350	24.006	1.00	18.84	A	C
ATOM	743	NE1	TRP	124	62.270	61.690	23.597	1.00	18.74	A	N
ATOM	744	CZ2	TRP	124	64.571	60.885	24.196	1.00	17.77	A	C
ATOM	745	CZ3	TRP	124	64.533	59.129	25.860	1.00	15.41	A	C
ATOM	746	CH2	TRP	124	65.229	59.986	24.996	1.00	17.07	A	C
ATOM	747	C	TRP	124	58.787	57.494	26.209	1.00	24.57	A	C
ATOM	748	O	TRP	124	58.490	56.350	25.861	1.00	25.71	A	O
ATOM	749	N	ARG	125	58.013	58.218	27.013	1.00	24.36	A	N
ATOM	750	CA	ARG	125	56.779	57.670	27.567	1.00	23.36	A	C
ATOM	751	CB	ARG	125	56.189	58.621	28.609	1.00	23.81	A	C
ATOM	752	CG	ARG	125	54.953	58.065	29.308	1.00	23.85	A	C
ATOM	753	CD	ARG	125	54.273	59.129	30.143	1.00	26.24	A	C
ATOM	754	NE	ARG	125	55.090	59.579	31.269	1.00	25.99	A	N
ATOM	755	CZ	ARG	125	55.293	58.867	32.372	1.00	26.04	A	C
ATOM	756	NH1	ARG	125	56.051	59.357	33.347	1.00	24.42	A	N
ATOM	757	NH2	ARG	125	54.735	57.668	32.500	1.00	25.19	A	N
ATOM	758	C	ARG	125	55.706	57.324	26.541	1.00	24.00	A	C
ATOM	759	O	ARG	125	54.935	56.387	26.752	1.00	25.04	A	O
ATOM	760	N	HIS	126	55.651	58.063	25.436	1.00	23.33	A	N
ATOM	761	CA	HIS	126	54.649	57.800	24.403	1.00	22.86	A	C
ATOM	762	CB	HIS	126	53.649	58.943	24.353	1.00	21.14	A	C
ATOM	763	CG	HIS	126	52.987	59.224	25.662	1.00	22.35	A	C
ATOM	764	CD2	HIS	126	53.027	60.316	26.463	1.00	21.51	A	C
ATOM	765	ND1	HIS	126	52.137	58.329	26.274	1.00	22.03	A	N
ATOM	766	CE1	HIS	126	51.679	58.859	27.395	1.00	23.59	A	C
ATOM	767	NE2	HIS	126	52.202	60.064	27.532	1.00	22.48	A	N
ATOM	768	C	HIS	126	55.222	57.599	22.995	1.00	24.43	A	C
ATOM	769	O	HIS	126	54.599	56.947	22.153	1.00	23.99	A	O
ATOM	770	N	SER	127	56.401	58.163	22.744	1.00	23.89	A	N
ATOM	771	CA	SER	127	57.039	58.072	21.434	1.00	24.38	A	C
ATOM	772	CB	SER	127	58.050	59.213	21.267	1.00	23.49	A	C
ATOM	773	OG	SER	127	58.909	59.311	22.387	1.00	23.05	A	O
ATOM	774	C	SER	127	57.737	56.748	21.146	1.00	24.40	A	C
ATOM	775	O	SER	127	58.167	56.050	22.061	1.00	26.55	A	O
ATOM	776	N	TYR	128	57.841	56.420	19.861	1.00	22.67	A	N
ATOM	777	CA	TYR	128	58.501	55.207	19.403	1.00	22.06	A	C
ATOM	778	CB	TYR	128	57.787	53.962	19.928	1.00	21.99	A	C
ATOM	779	CG	TYR	128	56.413	53.712	19.331	1.00	22.49	A	C
ATOM	780	CD1	TYR	128	55.257	54.112	20.003	1.00	23.20	A	C
ATOM	781	CE1	TYR	128	53.992	53.857	19.487	1.00	19.81	A	C
ATOM	782	CD2	TYR	128	56.267	53.049	18.109	1.00	20.70	A	C
ATOM	783	CE2	TYR	128	55.007	52.791	17.580	1.00	20.87	A	C

(Continued)

FIG. 4-17

ATOM	784	CZ	TYR	128	53.872	53.197	18.279	1.00	22.39	A C
ATOM	785	OH	TYR	128	52.614	52.946	17.776	1.00	19.88	A O
ATOM	786	C	TYR	128	58.509	55.160	17.882	1.00	22.84	A C
ATOM	787	O	TYR	128	57.800	55.922	17.224	1.00	24.63	A O
ATOM	788	N	THR	129	59.328	54.281	17.320	1.00	22.88	A N
ATOM	789	CA	THR	129	59.360	54.125	15.874	1.00	25.24	A C
ATOM	790	CB	THR	129	60.723	54.474	15.245	1.00	27.54	A C
ATOM	791	OG1	THR	129	61.756	53.676	15.844	1.00	33.01	A O
ATOM	792	CG2	THR	129	61.025	55.951	15.419	1.00	28.79	A C
ATOM	793	C	THR	129	59.062	52.675	15.580	1.00	24.85	A C
ATOM	794	O	THR	129	59.168	51.811	16.457	1.00	22.29	A O
ATOM	795	N	ALA	130	58.692	52.411	14.337	1.00	24.54	A N
ATOM	796	CA	ALA	130	58.356	51.062	13.943	1.00	25.98	A C
ATOM	797	CB	ALA	130	57.061	50.636	14.618	1.00	22.73	A C
ATOM	798	C	ALA	130	58.195	50.983	12.445	1.00	26.81	A C
ATOM	799	O	ALA	130	58.277	51.988	11.740	1.00	27.92	A O
ATOM	800	N	SER	131	57.978	49.767	11.965	1.00	27.15	A N
ATOM	801	CA	SER	131	57.759	49.540	10.556	1.00	27.62	A C
ATOM	802	CB	SER	131	58.643	48.403	10.059	1.00	28.58	A C
ATOM	803	OG	SER	131	59.995	48.822	10.022	1.00	29.90	A O
ATOM	804	C	SER	131	56.290	49.187	10.426	1.00	27.17	A C
ATOM	805	O	SER	131	55.651	48.779	11.397	1.00	27.00	A O
ATOM	806	N	TYR	132	55.747	49.351	9.232	1.00	27.56	A N
ATOM	807	CA	TYR	132	54.341	49.061	9.029	1.00	28.28	A C
ATOM	808	CB	TYR	132	53.532	50.357	9.156	1.00	27.16	A C
ATOM	809	CG	TYR	132	53.649	51.046	10.507	1.00	25.23	A C
ATOM	810	CD1	TYR	132	52.692	50.842	11.500	1.00	24.00	A C
ATOM	811	CE1	TYR	132	52.790	51.483	12.735	1.00	23.00	A C
ATOM	812	CD2	TYR	132	54.714	51.908	10.785	1.00	22.89	A C
ATOM	813	CE2	TYR	132	54.822	52.549	12.016	1.00	21.43	A C
ATOM	814	CZ	TYR	132	53.856	52.333	12.985	1.00	22.58	A C
ATOM	815	OH	TYR	132	53.940	52.976	14.198	1.00	21.69	A O
ATOM	816	C	TYR	132	54.071	48.418	7.680	1.00	28.72	A C
ATOM	817	O	TYR	132	54.794	48.639	6.712	1.00	29.54	A O
ATOM	818	N	ASP	133	53.028	47.604	7.631	1.00	29.99	A N
ATOM	819	CA	ASP	133	52.629	46.956	6.392	1.00	31.05	A C
ATOM	820	CB	ASP	133	53.147	45.519	6.314	1.00	31.90	A C
ATOM	821	CG	ASP	133	54.541	45.436	5.721	1.00	33.92	A C
ATOM	822	OD1	ASP	133	54.773	46.042	4.649	1.00	33.52	A O
ATOM	823	OD2	ASP	133	55.400	44.756	6.321	1.00	35.83	A O
ATOM	824	C	ASP	133	51.125	46.952	6.334	1.00	30.39	A C
ATOM	825	O	ASP	133	50.467	46.384	7.202	1.00	33.36	A O
ATOM	826	N	ILE	134	50.579	47.598	5.315	1.00	28.05	A N
ATOM	827	CA	ILE	134	49.144	47.652	5.157	1.00	25.68	A C
ATOM	828	CB	ILE	134	48.732	48.816	4.269	1.00	23.81	A C
ATOM	829	CG2	ILE	134	47.221	48.954	4.289	1.00	22.12	A C
ATOM	830	CG1	ILE	134	49.421	50.095	4.752	1.00	23.64	A C
ATOM	831	CD1	ILE	134	49.232	51.277	3.846	1.00	22.40	A C
ATOM	832	C	ILE	134	48.635	46.368	4.524	1.00	27.46	A C

(Continued)

FIG. 4-18

ATOM	833	O	ILE	134	49.171	45.894	3.521	1.00	27.19	A	O
ATOM	834	N	TYR	135	47.599	45.805	5.127	1.00	29.43	A	N
ATOM	835	CA	TYR	135	46.985	44.588	4.628	1.00	30.54	A	C
ATOM	836	CB	TYR	135	46.800	43.588	5.772	1.00	33.25	A	C
ATOM	837	CG	TYR	135	46.276	42.242	5.343	1.00	35.66	A	C
ATOM	838	CD1	TYR	135	47.113	41.311	4.731	1.00	37.89	A	C
ATOM	839	CE1	TYR	135	46.634	40.068	4.319	1.00	40.13	A	C
ATOM	840	CD2	TYR	135	44.939	41.903	5.535	1.00	37.34	A	C
ATOM	841	CE2	TYR	135	44.444	40.666	5.126	1.00	40.17	A	C
ATOM	842	CZ	TYR	135	45.296	39.751	4.518	1.00	41.67	A	C
ATOM	843	OH	TYR	135	44.811	38.526	4.105	1.00	42.54	A	O
ATOM	844	C	TYR	135	45.629	44.990	4.057	1.00	30.05	A	C
ATOM	845	O	TYR	135	44.870	45.705	4.704	1.00	28.31	A	O
ATOM	846	N	ASP	136	45.341	44.536	2.841	1.00	31.33	A	N
ATOM	847	CA	ASP	136	44.083	44.837	2.168	1.00	33.02	A	C
ATOM	848	CB	ASP	136	44.323	44.857	0.655	1.00	32.51	A	C
ATOM	849	CG	ASP	136	43.057	45.095	-0.146	1.00	33.01	A	C
ATOM	850	OD1	ASP	136	43.115	45.872	-1.121	1.00	31.21	A	O
ATOM	851	OD2	ASP	136	42.009	44.500	0.181	1.00	34.97	A	O
ATOM	852	C	ASP	136	43.019	43.797	2.549	1.00	35.55	A	C
ATOM	853	O	ASP	136	42.822	42.810	1.846	1.00	36.12	A	O
ATOM	854	N	LEU	137	42.341	44.040	3.669	1.00	38.03	A	N
ATOM	855	CA	LEU	137	41.303	43.150	4.192	1.00	40.58	A	C
ATOM	856	CB	LEU	137	40.445	43.892	5.225	1.00	40.10	A	C
ATOM	857	CG	LEU	137	41.160	44.413	6.477	1.00	39.13	A	C
ATOM	858	CD1	LEU	137	40.206	45.257	7.307	1.00	37.54	A	C
ATOM	859	CD2	LEU	137	41.686	43.243	7.286	1.00	38.91	A	C
ATOM	860	C	LEU	137	40.392	42.536	3.134	1.00	42.88	A	C
ATOM	861	O	LEU	137	40.038	41.362	3.225	1.00	43.41	A	O
ATOM	862	N	ASN	138	39.997	43.322	2.141	1.00	45.42	A	N
ATOM	863	CA	ASN	138	39.132	42.796	1.093	1.00	48.50	A	C
ATOM	864	CB	ASN	138	38.537	43.936	0.264	1.00	49.71	A	C
ATOM	865	CG	ASN	138	37.127	44.291	0.697	1.00	50.83	A	C
ATOM	866	OD1	ASN	138	36.873	44.555	1.871	1.00	51.97	A	O
ATOM	867	ND2	ASN	138	36.202	44.296	-0.254	1.00	52.74	A	N
ATOM	868	C	ASN	138	39.884	41.824	0.191	1.00	49.47	A	C
ATOM	869	O	ASN	138	39.642	40.619	0.240	1.00	50.62	A	O
ATOM	870	N	LYS	139	40.794	42.346	-0.626	1.00	50.26	A	N
ATOM	871	CA	LYS	139	41.581	41.507	-1.526	1.00	51.09	A	C
ATOM	872	CB	LYS	139	42.510	42.374	-2.382	1.00	51.15	A	C
ATOM	873	CG	LYS	139	41.785	43.427	-3.212	1.00	53.38	A	C
ATOM	874	CD	LYS	139	42.753	44.331	-3.974	1.00	54.25	A	C
ATOM	875	CE	LYS	139	43.550	43.564	-5.021	1.00	56.31	A	C
ATOM	876	NZ	LYS	139	44.447	44.453	-5.817	1.00	56.39	A	N
ATOM	877	C	LYS	139	42.413	40.528	-0.703	1.00	51.63	A	C
ATOM	878	O	LYS	139	43.148	39.708	-1.251	1.00	51.80	A	O
ATOM	879	N	ARG	140	42.288	40.624	0.618	1.00	51.49	A	N
ATOM	880	CA	ARG	140	43.025	39.768	1.534	1.00	51.71	A	C
ATOM	881	CB	ARG	140	42.338	38.408	1.642	1.00	53.88	A	C

(Continued)

FIG. 4-19

ATOM	882	CG	ARG	140	40.911	38.495	2.157	1.00	57.36	A	C
ATOM	883	CD	ARG	140	40.257	37.128	2.211	1.00	60.02	A	C
ATOM	884	NE	ARG	140	40.936	36.235	3.142	1.00	62.76	A	N
ATOM	885	CZ	ARG	140	40.633	34.950	3.294	1.00	64.87	A	C
ATOM	886	NH1	ARG	140	39.661	34.409	2.570	1.00	66.83	A	N
ATOM	887	NH2	ARG	140	41.298	34.206	4.169	1.00	65.62	A	N
ATOM	888	C	ARG	140	44.464	39.603	1.066	1.00	50.29	A	C
ATOM	889	O	ARG	140	44.992	38.496	1.002	1.00	50.21	A	O
ATOM	890	N	GLN	141	45.096	40.723	0.741	1.00	49.82	A	N
ATOM	891	CA	GLN	141	46.473	40.707	0.268	1.00	48.70	A	C
ATOM	892	CB	GLN	141	46.487	40.815	-1.260	1.00	50.32	A	C
ATOM	893	CG	GLN	141	47.774	40.348	-1.909	1.00	55.02	A	C
ATOM	894	CD	GLN	141	47.640	40.179	-3.413	1.00	57.33	A	C
ATOM	895	OE1	GLN	141	48.582	39.756	-4.088	1.00	57.97	A	O
ATOM	896	NE2	GLN	141	46.465	40.509	-3.947	1.00	58.85	A	N
ATOM	897	C	GLN	141	47.293	41.837	0.898	1.00	46.02	A	C
ATOM	898	O	GLN	141	46.761	42.880	1.274	1.00	45.33	A	O
ATOM	899	N	LEU	142	48.594	41.610	1.013	1.00	43.34	A	N
ATOM	900	CA	LEU	142	49.505	42.578	1.605	1.00	41.50	A	C
ATOM	901	CB	LEU	142	50.638	41.824	2.296	1.00	41.17	A	C
ATOM	902	CG	LEU	142	51.489	42.501	3.359	1.00	42.33	A	C
ATOM	903	CD1	LEU	142	52.443	41.463	3.922	1.00	42.24	A	C
ATOM	904	CD2	LEU	142	52.254	43.677	2.772	1.00	42.66	A	C
ATOM	905	C	LEU	142	50.062	43.498	0.520	1.00	40.87	A	C
ATOM	906	O	LEU	142	50.557	43.030	-0.506	1.00	41.57	A	O
ATOM	907	N	ILE	143	49.978	44.806	0.748	1.00	39.20	A	N
ATOM	908	CA	ILE	143	50.466	45.789	-0.217	1.00	37.17	A	C
ATOM	909	CB	ILE	143	49.921	47.202	0.104	1.00	36.58	A	C
ATOM	910	CG2	ILE	143	50.486	48.225	-0.874	1.00	35.56	A	C
ATOM	911	CG1	ILE	143	48.398	47.197	0.030	1.00	34.64	A	C
ATOM	912	CD1	ILE	143	47.777	48.494	0.468	1.00	37.28	A	C
ATOM	913	C	ILE	143	51.985	45.843	-0.209	1.00	36.06	A	C
ATOM	914	O	ILE	143	52.603	45.859	0.849	1.00	36.63	A	O
ATOM	915	N	THR	144	52.592	45.882	-1.386	1.00	35.40	A	N
ATOM	916	CA	THR	144	54.046	45.933	-1.459	1.00	35.79	A	C
ATOM	917	CB	THR	144	54.616	44.654	-2.124	1.00	35.59	A	C
ATOM	918	OG1	THR	144	54.192	44.592	-3.491	1.00	37.13	A	O
ATOM	919	CG2	THR	144	54.121	43.415	-1.403	1.00	33.21	A	C
ATOM	920	C	THR	144	54.515	47.152	-2.243	1.00	35.43	A	C
ATOM	921	O	THR	144	55.700	47.311	-2.511	1.00	36.45	A	O
ATOM	922	N	GLU	145	53.577	48.015	-2.602	1.00	36.27	A	N
ATOM	923	CA	GLU	145	53.891	49.214	-3.369	1.00	36.32	A	C
ATOM	924	CB	GLU	145	52.962	49.297	-4.586	1.00	38.36	A	C
ATOM	925	CG	GLU	145	53.553	48.748	-5.875	1.00	42.66	A	C
ATOM	926	CD	GLU	145	54.667	49.639	-6.418	1.00	45.91	A	C
ATOM	927	OE1	GLU	145	55.745	49.705	-5.779	1.00	45.49	A	O
ATOM	928	OE2	GLU	145	54.456	50.283	-7.476	1.00	45.56	A	O
ATOM	929	C	GLU	145	53.775	50.496	-2.544	1.00	35.06	A	C
ATOM	930	O	GLU	145	52.874	50.635	-1.715	1.00	34.22	A	O

(Continued)

FIG. 4-20

ATOM	931	N	GLU	146	54.692	51.428	-2.782	1.00	33.82	A	N
ATOM	932	CA	GLU	146	54.699	52.706	-2.079	1.00	32.54	A	C
ATOM	933	CB	GLU	146	53.594	53.608	-2.630	1.00	33.84	A	C
ATOM	934	CG	GLU	146	53.708	53.924	-4.107	1.00	33.18	A	C
ATOM	935	CD	GLU	146	54.992	54.651	-4.455	1.00	33.14	A	C
ATOM	936	OE1	GLU	146	55.677	55.129	-3.528	1.00	32.11	A	O
ATOM	937	OE2	GLU	146	55.309	54.754	-5.660	1.00	35.19	A	O
ATOM	938	C	GLU	146	54.495	52.521	-0.579	1.00	32.26	A	C
ATOM	939	O	GLU	146	53.644	53.172	0.031	1.00	32.38	A	O
ATOM	940	N	ARG	147	55.287	51.638	0.013	1.00	30.84	A	N
ATOM	941	CA	ARG	147	55.185	51.357	1.437	1.00	29.94	A	C
ATOM	942	CB	ARG	147	55.992	50.107	1.774	1.00	31.91	A	C
ATOM	943	CG	ARG	147	55.376	48.821	1.262	1.00	33.35	A	C
ATOM	944	CD	ARG	147	55.999	47.649	1.963	1.00	34.66	A	C
ATOM	945	NE	ARG	147	57.415	47.539	1.650	1.00	37.64	A	N
ATOM	946	CZ	ARG	147	58.271	46.812	2.356	1.00	39.76	A	C
ATOM	947	NH1	ARG	147	57.844	46.143	3.421	1.00	40.68	A	N
ATOM	948	NH2	ARG	147	59.546	46.737	1.987	1.00	39.79	A	N
ATOM	949	C	ARG	147	55.623	52.483	2.363	1.00	28.99	A	C
ATOM	950	O	ARG	147	56.440	53.330	2.002	1.00	29.74	A	O
ATOM	951	N	ILE	148	55.066	52.486	3.568	1.00	26.79	A	N
ATOM	952	CA	ILE	148	55.430	53.484	4.555	1.00	25.21	A	C
ATOM	953	CB	ILE	148	54.537	53.364	5.798	1.00	24.62	A	C
ATOM	954	CG2	ILE	148	55.096	54.201	6.940	1.00	25.09	A	C
ATOM	955	CG1	ILE	148	53.116	53.794	5.427	1.00	23.14	A	C
ATOM	956	CD1	ILE	148	52.107	53.642	6.533	1.00	23.82	A	C
ATOM	957	C	ILE	148	56.879	53.173	4.891	1.00	24.99	A	C
ATOM	958	O	ILE	148	57.240	52.014	5.068	1.00	26.06	A	O
ATOM	959	N	PRO	149	57.735	54.201	4.974	1.00	24.98	A	N
ATOM	960	CD	PRO	149	57.443	55.645	4.930	1.00	24.87	A	C
ATOM	961	CA	PRO	149	59.148	53.966	5.282	1.00	26.52	A	C
ATOM	962	CB	PRO	149	59.765	55.356	5.151	1.00	24.90	A	C
ATOM	963	CG	PRO	149	58.659	56.244	5.614	1.00	24.49	A	C
ATOM	964	C	PRO	149	59.421	53.352	6.642	1.00	27.89	A	C
ATOM	965	O	PRO	149	58.621	53.489	7.567	1.00	27.47	A	O
ATOM	966	N	ASN	150	60.551	52.657	6.748	1.00	29.59	A	N
ATOM	967	CA	ASN	150	60.950	52.064	8.016	1.00	30.82	A	C
ATOM	968	CB	ASN	150	62.154	51.131	7.830	1.00	32.43	A	C
ATOM	969	CG	ASN	150	61.775	49.805	7.189	1.00	35.16	A	C
ATOM	970	OD1	ASN	150	60.749	49.215	7.530	1.00	36.40	A	O
ATOM	971	ND2	ASN	150	62.612	49.319	6.271	1.00	36.52	A	N
ATOM	972	C	ASN	150	61.336	53.245	8.900	1.00	30.50	A	C
ATOM	973	O	ASN	150	61.583	54.348	8.394	1.00	31.20	A	O
ATOM	974	N	ASN	151	61.387	53.022	10.208	1.00	28.46	A	N
ATOM	975	CA	ASN	151	61.734	54.078	11.154	1.00	28.87	A	C
ATOM	976	CB	ASN	151	63.137	54.622	10.877	1.00	30.74	A	C
ATOM	977	CG	ASN	151	64.213	53.571	11.048	1.00	34.06	A	C
ATOM	978	OD1	ASN	151	64.360	52.678	10.219	1.00	36.24	A	O
ATOM	979	ND2	ASN	151	64.965	53.666	12.139	1.00	37.62	A	N

(Continued)

FIG. 4-21

ATOM	980	C	ASN	151	60.734	55.230	11.111	1.00	28.16	A	C
ATOM	981	O	ASN	151	61.118	56.400	11.112	1.00	28.85	A	O
ATOM	982	N	THR	152	59.450	54.895	11.064	1.00	26.20	A	N
ATOM	983	CA	THR	152	58.415	55.911	11.041	1.00	24.74	A	C
ATOM	984	CB	THR	152	57.119	55.389	10.399	1.00	25.27	A	C
ATOM	985	OG1	THR	152	57.351	55.125	9.009	1.00	24.18	A	O
ATOM	986	CG2	THR	152	56.004	56.426	10.538	1.00	23.99	A	C
ATOM	987	C	THR	152	58.139	56.319	12.474	1.00	23.46	A	C
ATOM	988	O	THR	152	57.933	55.476	13.340	1.00	25.16	A	O
ATOM	989	N	GLN	153	58.134	57.620	12.721	1.00	22.30	A	N
ATOM	990	CA	GLN	153	57.916	58.129	14.063	1.00	20.67	A	C
ATOM	991	CB	GLN	153	58.501	59.534	14.161	1.00	19.09	A	C
ATOM	992	CG	GLN	153	60.002	59.543	13.906	1.00	13.74	A	C
ATOM	993	CD	GLN	153	60.495	60.853	13.331	1.00	14.57	A	C
ATOM	994	OE1	GLN	153	60.089	61.260	12.233	1.00	12.70	A	O
ATOM	995	NE2	GLN	153	61.375	61.524	14.066	1.00	10.81	A	N
ATOM	996	C	GLN	153	56.460	58.112	14.495	1.00	20.53	A	C
ATOM	997	O	GLN	153	56.163	57.979	15.683	1.00	19.36	A	O
ATOM	998	N	TRP	154	55.556	58.229	13.531	1.00	20.90	A	N
ATOM	999	CA	TRP	154	54.131	58.213	13.831	1.00	21.02	A	C
ATOM	1000	CB	TRP	154	53.733	59.498	14.550	1.00	22.43	A	C
ATOM	1001	CG	TRP	154	52.312	59.530	14.923	1.00	21.90	A	C
ATOM	1002	CD2	TRP	154	51.695	58.791	15.976	1.00	22.22	A	C
ATOM	1003	CE2	TRP	154	50.315	59.087	15.942	1.00	23.62	A	C
ATOM	1004	CE3	TRP	154	52.173	57.902	16.947	1.00	22.95	A	C
ATOM	1005	CD1	TRP	154	51.321	60.228	14.308	1.00	24.44	A	C
ATOM	1006	NE1	TRP	154	50.112	59.968	14.912	1.00	24.78	A	N
ATOM	1007	CZ2	TRP	154	49.404	58.526	16.842	1.00	22.94	A	C
ATOM	1008	CZ3	TRP	154	51.263	57.339	17.847	1.00	22.07	A	C
ATOM	1009	CH2	TRP	154	49.897	57.656	17.784	1.00	23.43	A	C
ATOM	1010	C	TRP	154	53.291	58.054	12.576	1.00	21.43	A	C
ATOM	1011	O	TRP	154	53.642	58.572	11.518	1.00	22.33	A	O
ATOM	1012	N	VAL	155	52.173	57.343	12.703	1.00	21.97	A	N
ATOM	1013	CA	VAL	155	51.267	57.103	11.579	1.00	20.81	A	C
ATOM	1014	CB	VAL	155	51.642	55.797	10.840	1.00	19.96	A	C
ATOM	1015	CG1	VAL	155	51.835	54.687	11.842	1.00	21.34	A	C
ATOM	1016	CG2	VAL	155	50.562	55.414	9.833	1.00	20.23	A	C
ATOM	1017	C	VAL	155	49.840	57.004	12.104	1.00	21.39	A	C
ATOM	1018	O	VAL	155	49.601	56.425	13.162	1.00	21.74	A	O
ATOM	1019	N	THR	156	48.898	57.576	11.364	1.00	20.70	A	N
ATOM	1020	CA	THR	156	47.504	57.557	11.768	1.00	21.67	A	C
ATOM	1021	CB	THR	156	47.189	58.736	12.716	1.00	22.79	A	C
ATOM	1022	OG1	THR	156	45.771	58.848	12.890	1.00	25.50	A	O
ATOM	1023	CG2	THR	156	47.707	60.031	12.145	1.00	22.46	A	C
ATOM	1024	C	THR	156	46.558	57.633	10.577	1.00	22.20	A	C
ATOM	1025	O	THR	156	46.861	58.276	9.577	1.00	22.72	A	O
ATOM	1026	N	TRP	157	45.413	56.966	10.689	1.00	21.38	A	N
ATOM	1027	CA	TRP	157	44.423	56.985	9.627	1.00	21.45	A	C
ATOM	1028	CB	TRP	157	43.426	55.825	9.765	1.00	21.88	A	C

(Continued)

FIG. 4-22

ATOM	1029	CG	TRP	157	43.995	54.450	9.599	1.00	20.88	A	C
ATOM	1030	CD2	TRP	157	44.315	53.800	8.364	1.00	18.96	A	C
ATOM	1031	CE2	TRP	157	44.843	52.531	8.686	1.00	19.67	A	C
ATOM	1032	CE3	TRP	157	44.208	54.168	7.019	1.00	17.93	A	C
ATOM	1033	CD1	TRP	157	44.328	53.571	10.592	1.00	20.82	A	C
ATOM	1034	NE1	TRP	157	44.838	52.417	10.052	1.00	21.01	A	N
ATOM	1035	CZ2	TRP	157	45.265	51.626	7.708	1.00	19.12	A	C
ATOM	1036	CZ3	TRP	157	44.627	53.267	6.046	1.00	19.76	A	C
ATOM	1037	CH2	TRP	157	45.149	52.011	6.397	1.00	19.30	A	C
ATOM	1038	C	TRP	157	43.650	58.276	9.801	1.00	23.03	A	C
ATOM	1039	O	TRP	157	43.750	58.917	10.843	1.00	25.03	A	O
ATOM	1040	N	SER	158	42.889	58.663	8.784	1.00	23.17	A	N
ATOM	1041	CA	SER	158	42.064	59.855	8.889	1.00	23.44	A	C
ATOM	1042	CB	SER	158	41.667	60.362	7.502	1.00	22.82	A	C
ATOM	1043	OG	SER	158	41.208	59.311	6.679	1.00	23.84	A	O
ATOM	1044	C	SER	158	40.845	59.377	9.678	1.00	23.86	A	C
ATOM	1045	O	SER	158	40.613	58.176	9.781	1.00	24.35	A	O
ATOM	1046	N	PRO	159	40.056	60.301	10.247	1.00	24.17	A	N
ATOM	1047	CD	PRO	159	40.136	61.762	10.114	1.00	24.24	A	C
ATOM	1048	CA	PRO	159	38.876	59.922	11.029	1.00	23.40	A	C
ATOM	1049	CB	PRO	159	38.270	61.264	11.419	1.00	23.45	A	C
ATOM	1050	CG	PRO	159	39.427	62.214	11.353	1.00	24.19	A	C
ATOM	1051	C	PRO	159	37.901	59.090	10.224	1.00	25.36	A	C
ATOM	1052	O	PRO	159	37.191	58.248	10.771	1.00	27.14	A	O
ATOM	1053	N	VAL	160	37.878	59.334	8.919	1.00	25.28	A	N
ATOM	1054	CA	VAL	160	36.977	58.640	8.014	1.00	23.99	A	C
ATOM	1055	CB	VAL	160	35.784	59.545	7.689	1.00	24.54	A	C
ATOM	1056	CG1	VAL	160	35.066	59.064	6.449	1.00	26.50	A	C
ATOM	1057	CG2	VAL	160	34.834	59.559	8.875	1.00	26.15	A	C
ATOM	1058	C	VAL	160	37.679	58.218	6.730	1.00	23.78	A	C
ATOM	1059	O	VAL	160	38.570	58.908	6.245	1.00	24.51	A	O
ATOM	1060	N	GLY	161	37.268	57.080	6.181	1.00	24.05	A	N
ATOM	1061	CA	GLY	161	37.876	56.579	4.962	1.00	22.93	A	C
ATOM	1062	C	GLY	161	39.121	55.786	5.286	1.00	23.87	A	C
ATOM	1063	O	GLY	161	39.144	55.045	6.269	1.00	24.24	A	O
ATOM	1064	N	HIS	162	40.164	55.950	4.476	1.00	25.01	A	N
ATOM	1065	CA	HIS	162	41.423	55.239	4.695	1.00	25.86	A	C
ATOM	1066	CB	HIS	162	41.419	53.923	3.920	1.00	26.04	A	C
ATOM	1067	CG	HIS	162	41.075	54.087	2.475	1.00	27.52	A	C
ATOM	1068	CD2	HIS	162	41.614	54.875	1.515	1.00	27.58	A	C
ATOM	1069	ND1	HIS	162	40.039	53.402	1.874	1.00	27.77	A	N
ATOM	1070	CE1	HIS	162	39.956	53.764	0.606	1.00	28.51	A	C
ATOM	1071	NE2	HIS	162	40.900	54.656	0.363	1.00	28.82	A	N
ATOM	1072	C	HIS	162	42.660	56.053	4.305	1.00	25.44	A	C
ATOM	1073	O	HIS	162	43.636	55.501	3.794	1.00	24.38	A	O
ATOM	1074	N	LYS	163	42.609	57.364	4.527	1.00	24.47	A	N
ATOM	1075	CA	LYS	163	43.751	58.221	4.224	1.00	23.45	A	C
ATOM	1076	CB	LYS	163	43.372	59.701	4.273	1.00	21.75	A	C
ATOM	1077	CG	LYS	163	42.528	60.216	3.130	1.00	21.55	A	C

(Continued)

FIG. 4-23

ATOM	1078	CD	LYS	163	42.281	61.706	3.335	1.00	20.23	A	C
ATOM	1079	CE	LYS	163	41.464	62.316	2.228	1.00	18.07	A	C
ATOM	1080	NZ	LYS	163	41.315	63.778	2.422	1.00	20.95	A	N
ATOM	1081	C	LYS	163	44.781	57.961	5.309	1.00	23.44	A	C
ATOM	1082	O	LYS	163	44.425	57.600	6.433	1.00	23.42	A	O
ATOM	1083	N	LEU	164	46.053	58.146	4.979	1.00	23.11	A	N
ATOM	1084	CA	LEU	164	47.117	57.937	5.950	1.00	23.65	A	C
ATOM	1085	CB	LEU	164	48.014	56.773	5.524	1.00	24.35	A	C
ATOM	1086	CG	LEU	164	47.551	55.351	5.848	1.00	25.57	A	C
ATOM	1087	CD1	LEU	164	48.519	54.349	5.219	1.00	25.59	A	C
ATOM	1088	CD2	LEU	164	47.497	55.162	7.359	1.00	25.62	A	C
ATOM	1089	C	LEU	164	47.970	59.182	6.120	1.00	23.21	A	C
ATOM	1090	O	LEU	164	48.175	59.943	5.177	1.00	24.34	A	O
ATOM	1091	N	ALA	165	48.456	59.383	7.335	1.00	21.88	A	N
ATOM	1092	CA	ALA	165	49.319	60.508	7.649	1.00	21.58	A	C
ATOM	1093	CB	ALA	165	48.548	61.583	8.376	1.00	21.77	A	C
ATOM	1094	C	ALA	165	50.406	59.953	8.545	1.00	22.07	A	C
ATOM	1095	O	ALA	165	50.115	59.285	9.537	1.00	22.91	A	O
ATOM	1096	N	TYR	166	51.661	60.208	8.201	1.00	22.02	A	N
ATOM	1097	CA	TYR	166	52.745	59.697	9.024	1.00	21.73	A	C
ATOM	1098	CB	TYR	166	53.185	58.319	8.520	1.00	22.38	A	C
ATOM	1099	CG	TYR	166	53.814	58.315	7.141	1.00	22.11	A	C
ATOM	1100	CD1	TYR	166	55.148	58.661	6.964	1.00	21.28	A	C
ATOM	1101	CE1	TYR	166	55.733	58.638	5.704	1.00	22.05	A	C
ATOM	1102	CD2	TYR	166	53.074	57.949	6.015	1.00	20.67	A	C
ATOM	1103	CE2	TYR	166	53.648	57.923	4.753	1.00	20.02	A	C
ATOM	1104	CZ	TYR	166	54.981	58.268	4.603	1.00	21.75	A	C
ATOM	1105	OH	TYR	166	55.566	58.252	3.352	1.00	20.77	A	O
ATOM	1106	C	TYR	166	53.927	60.643	9.057	1.00	21.64	A	C
ATOM	1107	O	TYR	166	54.108	61.464	8.157	1.00	21.61	A	O
ATOM	1108	N	VAL	167	54.722	60.529	10.111	1.00	20.28	A	N
ATOM	1109	CA	VAL	167	55.886	61.371	10.264	1.00	19.16	A	C
ATOM	1110	CB	VAL	167	55.924	62.011	11.644	1.00	19.56	A	C
ATOM	1111	CG1	VAL	167	57.103	62.984	11.731	1.00	18.58	A	C
ATOM	1112	CG2	VAL	167	54.609	62.713	11.916	1.00	18.36	A	C
ATOM	1113	C	VAL	167	57.135	60.537	10.078	1.00	20.06	A	C
ATOM	1114	O	VAL	167	57.287	59.474	10.679	1.00	21.80	A	O
ATOM	1115	N	TRP	168	58.030	61.023	9.233	1.00	19.65	A	N
ATOM	1116	CA	TRP	168	59.268	60.320	8.964	1.00	19.61	A	C
ATOM	1117	CB	TRP	168	59.164	59.558	7.646	1.00	20.07	A	C
ATOM	1118	CG	TRP	168	60.387	58.772	7.353	1.00	23.12	A	C
ATOM	1119	CD2	TRP	168	61.319	59.011	6.300	1.00	21.38	A	C
ATOM	1120	CE2	TRP	168	62.353	58.061	6.436	1.00	21.58	A	C
ATOM	1121	CE3	TRP	168	61.382	59.936	5.256	1.00	21.74	A	C
ATOM	1122	CD1	TRP	168	60.873	57.712	8.066	1.00	22.86	A	C
ATOM	1123	NE1	TRP	168	62.056	57.281	7.521	1.00	21.54	A	N
ATOM	1124	CZ2	TRP	168	63.445	58.012	5.563	1.00	23.71	A	C
ATOM	1125	CZ3	TRP	168	62.468	59.889	4.386	1.00	23.21	A	C
ATOM	1126	CH2	TRP	168	63.484	58.934	4.546	1.00	22.74	A	C

(Continued)

FIG. 4-24

ATOM	1127	C	TRP	168	60.406	61.327	8.906	1.00	19.17	A	C
ATOM	1128	O	TRP	168	60.331	62.319	8.187	1.00	19.01	A	O
ATOM	1129	N	ASN	169	61.452	61.072	9.682	1.00	19.26	A	N
ATOM	1130	CA	ASN	169	62.589	61.969	9.732	1.00	21.05	A	C
ATOM	1131	CB	ASN	169	63.374	61.902	8.417	1.00	23.39	A	C
ATOM	1132	CG	ASN	169	64.056	60.565	8.217	1.00	26.24	A	C
ATOM	1133	OD1	ASN	169	64.410	60.196	7.097	1.00	29.51	A	O
ATOM	1134	ND2	ASN	169	64.255	59.832	9.307	1.00	27.22	A	N
ATOM	1135	C	ASN	169	62.122	63.394	10.007	1.00	19.72	A	C
ATOM	1136	O	ASN	169	62.582	64.344	9.378	1.00	19.61	A	O
ATOM	1137	N	ASN	170	61.182	63.522	10.938	1.00	19.01	A	N
ATOM	1138	CA	ASN	170	60.654	64.817	11.354	1.00	18.95	A	C
ATOM	1139	CB	ASN	170	61.806	65.679	11.887	1.00	19.76	A	C
ATOM	1140	CG	ASN	170	62.326	65.193	13.239	1.00	21.23	A	C
ATOM	1141	OD1	ASN	170	62.690	64.025	13.404	1.00	23.29	A	O
ATOM	1142	ND2	ASN	170	62.362	66.092	14.210	1.00	21.16	A	N
ATOM	1143	C	ASN	170	59.828	65.621	10.341	1.00	18.94	A	C
ATOM	1144	O	ASN	170	59.594	66.815	10.541	1.00	17.99	A	O
ATOM	1145	N	ASP	171	59.385	64.974	9.264	1.00	18.46	A	N
ATOM	1146	CA	ASP	171	58.566	65.643	8.254	1.00	18.64	A	C
ATOM	1147	CB	ASP	171	59.271	65.696	6.898	1.00	18.52	A	C
ATOM	1148	CG	ASP	171	60.353	66.750	6.836	1.00	17.77	A	C
ATOM	1149	OD1	ASP	171	60.126	67.876	7.307	1.00	17.30	A	O
ATOM	1150	OD2	ASP	171	61.436	66.454	6.294	1.00	24.17	A	O
ATOM	1151	C	ASP	171	57.255	64.888	8.099	1.00	20.36	A	C
ATOM	1152	O	ASP	171	57.182	63.690	8.382	1.00	21.44	A	O
ATOM	1153	N	ILE	172	56.225	65.585	7.632	1.00	19.52	A	N
ATOM	1154	CA	ILE	172	54.908	64.983	7.466	1.00	18.52	A	C
ATOM	1155	CB	ILE	172	53.813	65.966	7.899	1.00	18.99	A	C
ATOM	1156	CG2	ILE	172	52.443	65.329	7.734	1.00	17.69	A	C
ATOM	1157	CG1	ILE	172	54.053	66.394	9.350	1.00	18.78	A	C
ATOM	1158	CD1	ILE	172	53.167	67.538	9.795	1.00	18.44	A	C
ATOM	1159	C	ILE	172	54.609	64.539	6.044	1.00	18.52	A	C
ATOM	1160	O	ILE	172	54.905	65.246	5.085	1.00	19.61	A	O
ATOM	1161	N	TYR	173	54.017	63.358	5.921	1.00	17.61	A	N
ATOM	1162	CA	TYR	173	53.645	62.808	4.625	1.00	16.59	A	C
ATOM	1163	CB	TYR	173	54.519	61.612	4.256	1.00	14.94	A	C
ATOM	1164	CG	TYR	173	55.983	61.921	4.121	1.00	15.66	A	C
ATOM	1165	CD1	TYR	173	56.815	61.978	5.237	1.00	16.67	A	C
ATOM	1166	CE1	TYR	173	58.170	62.271	5.100	1.00	16.34	A	C
ATOM	1167	CD2	TYR	173	56.541	62.165	2.870	1.00	15.99	A	C
ATOM	1168	CE2	TYR	173	57.879	62.460	2.727	1.00	13.89	A	C
ATOM	1169	CZ	TYR	173	58.685	62.512	3.838	1.00	15.53	A	C
ATOM	1170	OH	TYR	173	60.004	62.837	3.678	1.00	21.66	A	O
ATOM	1171	C	TYR	173	52.198	62.341	4.679	1.00	17.34	A	C
ATOM	1172	O	TYR	173	51.683	62.008	5.748	1.00	14.56	A	O
ATOM	1173	N	VAL	174	51.552	62.306	3.518	1.00	18.18	A	N
ATOM	1174	CA	VAL	174	50.174	61.865	3.444	1.00	19.46	A	C
ATOM	1175	CB	VAL	174	49.212	63.060	3.319	1.00	18.88	A	C

(Continued)

FIG. 4-25

ATOM	1176	CG1	VAL	174	47.775	62.564	3.207	1.00	19.37	A	C
ATOM	1177	CG2	VAL	174	49.359	63.969	4.534	1.00	20.44	A	C
ATOM	1178	C	VAL	174	49.948	60.928	2.268	1.00	21.57	A	C
ATOM	1179	O	VAL	174	50.485	61.129	1.185	1.00	22.86	A	O
ATOM	1180	N	LYS	175	49.154	59.891	2.500	1.00	23.19	A	N
ATOM	1181	CA	LYS	175	48.824	58.934	1.461	1.00	23.86	A	C
ATOM	1182	CB	LYS	175	49.275	57.516	1.831	1.00	24.28	A	C
ATOM	1183	CG	LYS	175	50.759	57.352	2.113	1.00	28.82	A	C
ATOM	1184	CD	LYS	175	51.100	55.895	2.422	1.00	29.18	A	C
ATOM	1185	CE	LYS	175	51.107	55.043	1.163	1.00	29.84	A	C
ATOM	1186	NZ	LYS	175	52.263	55.409	0.291	1.00	31.80	A	N
ATOM	1187	C	LYS	175	47.314	58.935	1.338	1.00	24.49	A	C
ATOM	1188	O	LYS	175	46.615	58.606	2.293	1.00	25.05	A	O
ATOM	1189	N	ILE	176	46.820	59.319	0.166	1.00	24.77	A	N
ATOM	1190	CA	ILE	176	45.394	59.327	-0.102	1.00	24.70	A	C
ATOM	1191	CB	ILE	176	45.095	60.028	-1.437	1.00	22.88	A	C
ATOM	1192	CG2	ILE	176	43.605	60.073	-1.679	1.00	21.75	A	C
ATOM	1193	CG1	ILE	176	45.677	61.443	-1.423	1.00	21.52	A	C
ATOM	1194	CD1	ILE	176	45.016	62.379	-0.424	1.00	23.58	A	C
ATOM	1195	C	ILE	176	44.995	57.860	-0.211	1.00	26.89	A	C
ATOM	1196	O	ILE	176	43.979	57.428	0.328	1.00	26.38	A	O
ATOM	1197	N	GLU	177	45.829	57.097	-0.906	1.00	29.47	A	N
ATOM	1198	CA	GLU	177	45.597	55.672	-1.104	1.00	31.88	A	C
ATOM	1199	CB	GLU	177	45.412	55.380	-2.594	1.00	35.29	A	C
ATOM	1200	CG	GLU	177	44.308	56.190	-3.248	1.00	38.36	A	C
ATOM	1201	CD	GLU	177	42.925	55.776	-2.784	1.00	41.13	A	C
ATOM	1202	OE1	GLU	177	41.951	56.495	-3.105	1.00	45.06	A	O
ATOM	1203	OE2	GLU	177	42.810	54.730	-2.107	1.00	40.42	A	O
ATOM	1204	C	GLU	177	46.796	54.895	-0.569	1.00	31.55	A	C
ATOM	1205	O	GLU	177	47.940	55.223	-0.872	1.00	31.59	A	O
ATOM	1206	N	PRO	178	46.544	53.840	0.221	1.00	31.40	A	N
ATOM	1207	CD	PRO	178	45.218	53.240	0.438	1.00	30.50	A	C
ATOM	1208	CA	PRO	178	47.591	53.000	0.814	1.00	29.97	A	C
ATOM	1209	CB	PRO	178	46.796	51.902	1.509	1.00	30.05	A	C
ATOM	1210	CG	PRO	178	45.567	51.805	0.684	1.00	31.07	A	C
ATOM	1211	C	PRO	178	48.633	52.436	-0.150	1.00	29.50	A	C
ATOM	1212	O	PRO	178	49.727	52.062	0.269	1.00	31.00	A	O
ATOM	1213	N	ASN	179	48.308	52.379	-1.436	1.00	28.20	A	N
ATOM	1214	CA	ASN	179	49.251	51.838	-2.409	1.00	27.53	A	C
ATOM	1215	CB	ASN	179	48.568	50.805	-3.299	1.00	26.23	A	C
ATOM	1216	CG	ASN	179	47.474	51.409	-4.144	1.00	25.74	A	C
ATOM	1217	OD1	ASN	179	46.494	51.948	-3.626	1.00	26.59	A	O
ATOM	1218	ND2	ASN	179	47.635	51.329	-5.452	1.00	26.72	A	N
ATOM	1219	C	ASN	179	49.854	52.916	-3.285	1.00	27.48	A	C
ATOM	1220	O	ASN	179	50.818	52.670	-4.004	1.00	28.42	A	O
ATOM	1221	N	LEU	180	49.289	54.115	-3.231	1.00	26.68	A	N
ATOM	1222	CA	LEU	180	49.805	55.200	-4.050	1.00	26.11	A	C
ATOM	1223	CB	LEU	180	48.658	56.125	-4.456	1.00	24.86	A	C
ATOM	1224	CG	LEU	180	47.574	55.370	-5.238	1.00	25.87	A	C

(Continued)

FIG. 4-26

ATOM	1225	CD1	LEU	180	46.604	56.359	-5.856	1.00	23.58	A	C
ATOM	1226	CD2	LEU	180	48.224	54.503	-6.328	1.00	22.86	A	C
ATOM	1227	C	LEU	180	50.938	55.996	-3.391	1.00	25.78	A	C
ATOM	1228	O	LEU	180	51.185	55.883	-2.185	1.00	23.62	A	O
ATOM	1229	N	PRO	181	51.669	56.789	-4.194	1.00	24.96	A	N
ATOM	1230	CD	PRO	181	51.687	56.842	-5.667	1.00	23.41	A	C
ATOM	1231	CA	PRO	181	52.766	57.580	-3.634	1.00	23.35	A	C
ATOM	1232	CB	PRO	181	53.403	58.217	-4.870	1.00	22.16	A	C
ATOM	1233	CG	PRO	181	53.124	57.201	-5.944	1.00	22.72	A	C
ATOM	1234	C	PRO	181	52.216	58.613	-2.667	1.00	22.15	A	C
ATOM	1235	O	PRO	181	51.144	59.173	-2.880	1.00	21.88	A	O
ATOM	1236	N	SER	182	52.954	58.864	-1.601	1.00	21.65	A	N
ATOM	1237	CA	SER	182	52.516	59.829	-0.620	1.00	20.50	A	C
ATOM	1238	CB	SER	182	52.999	59.404	0.765	1.00	22.61	A	C
ATOM	1239	OG	SER	182	54.408	59.345	0.806	1.00	23.55	A	O
ATOM	1240	C	SER	182	53.034	61.222	-0.947	1.00	19.05	A	C
ATOM	1241	O	SER	182	54.003	61.380	-1.687	1.00	17.74	A	O
ATOM	1242	N	TYR	183	52.366	62.233	-0.402	1.00	17.87	A	N
ATOM	1243	CA	TYR	183	52.786	63.606	-0.611	1.00	15.17	A	C
ATOM	1244	CB	TYR	183	51.595	64.523	-0.832	1.00	12.09	A	C
ATOM	1245	CG	TYR	183	50.676	64.028	-1.905	1.00	12.54	A	C
ATOM	1246	CD1	TYR	183	49.729	63.052	-1.625	1.00	8.93	A	C
ATOM	1247	CE1	TYR	183	48.916	62.554	-2.610	1.00	11.95	A	C
ATOM	1248	CD2	TYR	183	50.782	64.494	-3.214	1.00	9.42	A	C
ATOM	1249	CE2	TYR	183	49.961	63.990	-4.218	1.00	10.27	A	C
ATOM	1250	CZ	TYR	183	49.032	63.019	-3.903	1.00	10.59	A	C
ATOM	1251	OH	TYR	183	48.205	62.494	-4.867	1.00	14.71	A	O
ATOM	1252	C	TYR	183	53.532	64.067	0.617	1.00	15.72	A	C
ATOM	1253	O	TYR	183	53.208	63.679	1.740	1.00	17.69	A	O
ATOM	1254	N	ARG	184	54.540	64.893	0.386	1.00	14.64	A	N
ATOM	1255	CA	ARG	184	55.342	65.436	1.452	1.00	14.10	A	C
ATOM	1256	CB	ARG	184	56.786	65.593	0.970	1.00	16.84	A	C
ATOM	1257	CG	ARG	184	57.725	66.203	1.989	1.00	20.48	A	C
ATOM	1258	CD	ARG	184	59.170	65.912	1.629	1.00	20.61	A	C
ATOM	1259	NE	ARG	184	60.095	66.485	2.598	1.00	20.21	A	N
ATOM	1260	CZ	ARG	184	61.407	66.288	2.583	1.00	19.46	A	C
ATOM	1261	NH1	ARG	184	61.954	65.529	1.650	1.00	17.13	A	N
ATOM	1262	NH2	ARG	184	62.170	66.853	3.506	1.00	20.35	A	N
ATOM	1263	C	ARG	184	54.736	66.779	1.820	1.00	14.10	A	C
ATOM	1264	O	ARG	184	54.569	67.650	0.972	1.00	14.71	A	O
ATOM	1265	N	ILE	185	54.390	66.937	3.089	1.00	15.27	A	N
ATOM	1266	CA	ILE	185	53.804	68.175	3.572	1.00	14.44	A	C
ATOM	1267	CB	ILE	185	52.786	67.884	4.692	1.00	16.20	A	C
ATOM	1268	CG2	ILE	185	52.091	69.175	5.115	1.00	14.78	A	C
ATOM	1269	CG1	ILE	185	51.770	66.842	4.202	1.00	15.25	A	C
ATOM	1270	CD1	ILE	185	51.021	67.250	2.947	1.00	12.00	A	C
ATOM	1271	C	ILE	185	54.847	69.172	4.091	1.00	14.33	A	C
ATOM	1272	O	ILE	185	54.647	70.377	3.994	1.00	14.95	A	O
ATOM	1273	N	THR	186	55.950	68.676	4.646	1.00	14.38	A	N

(Continued)

FIG. 4-27

ATOM	1274	CA	THR	186	56.995	69.555	5.169	1.00	15.05	A	C
ATOM	1275	CB	THR	186	57.051	69.549	6.717	1.00	15.72	A	C
ATOM	1276	OG1	THR	186	57.308	68.218	7.181	1.00	18.48	A	O
ATOM	1277	CG2	THR	186	55.734	70.060	7.323	1.00	13.92	A	C
ATOM	1278	C	THR	186	58.384	69.190	4.663	1.00	17.06	A	C
ATOM	1279	O	THR	186	58.643	68.055	4.262	1.00	19.33	A	O
ATOM	1280	N	TRP	187	59.275	70.174	4.696	1.00	18.28	A	N
ATOM	1281	CA	TRP	187	60.655	70.020	4.253	1.00	16.04	A	C
ATOM	1282	CB	TRP	187	60.843	70.734	2.915	1.00	13.96	A	C
ATOM	1283	CG	TRP	187	60.392	69.949	1.736	1.00	14.75	A	C
ATOM	1284	CD2	TRP	187	59.055	69.841	1.234	1.00	15.37	A	C
ATOM	1285	CE2	TRP	187	59.093	68.954	0.135	1.00	15.22	A	C
ATOM	1286	CE3	TRP	187	57.829	70.405	1.606	1.00	12.92	A	C
ATOM	1287	CD1	TRP	187	61.165	69.149	0.941	1.00	14.94	A	C
ATOM	1288	NE1	TRP	187	60.392	68.549	-0.020	1.00	15.60	A	N
ATOM	1289	CZ2	TRP	187	57.949	68.616	-0.597	1.00	17.91	A	C
ATOM	1290	CZ3	TRP	187	56.692	70.074	0.881	1.00	16.75	A	C
ATOM	1291	CH2	TRP	187	56.758	69.185	-0.211	1.00	17.84	A	C
ATOM	1292	C	TRP	187	61.607	70.620	5.292	1.00	15.71	A	C
ATOM	1293	O	TRP	187	62.804	70.725	5.053	1.00	19.54	A	O
ATOM	1294	N	THR	188	61.077	70.999	6.449	1.00	13.19	A	N
ATOM	1295	CA	THR	188	61.892	71.605	7.493	1.00	11.35	A	C
ATOM	1296	CB	THR	188	61.122	72.737	8.180	1.00	11.04	A	C
ATOM	1297	OG1	THR	188	59.835	72.253	8.587	1.00	9.11	A	O
ATOM	1298	CG2	THR	188	60.955	73.920	7.232	1.00	7.35	A	C
ATOM	1299	C	THR	188	62.384	70.642	8.572	1.00	12.10	A	C
ATOM	1300	O	THR	188	63.198	71.016	9.415	1.00	9.49	A	O
ATOM	1301	N	GLY	189	61.881	69.412	8.552	1.00	14.44	A	N
ATOM	1302	CA	GLY	189	62.296	68.426	9.538	1.00	16.08	A	C
ATOM	1303	C	GLY	189	63.794	68.421	9.782	1.00	15.86	A	C
ATOM	1304	O	GLY	189	64.584	68.685	8.881	1.00	17.65	A	O
ATOM	1305	N	LYS	190	64.196	68.117	11.004	1.00	17.28	A	N
ATOM	1306	CA	LYS	190	65.612	68.096	11.346	1.00	18.87	A	C
ATOM	1307	CB	LYS	190	66.189	69.512	11.264	1.00	20.03	A	C
ATOM	1308	CG	LYS	190	67.679	69.588	11.472	1.00	22.58	A	C
ATOM	1309	CD	LYS	190	68.181	70.997	11.256	1.00	27.62	A	C
ATOM	1310	CE	LYS	190	69.698	71.060	11.386	1.00	31.27	A	C
ATOM	1311	NZ	LYS	190	70.207	72.451	11.273	1.00	35.57	A	N
ATOM	1312	C	LYS	190	65.799	67.530	12.747	1.00	18.55	A	C
ATOM	1313	O	LYS	190	65.384	68.134	13.737	1.00	18.41	A	O
ATOM	1314	N	GLU	191	66.426	66.362	12.811	1.00	19.79	A	N
ATOM	1315	CA	GLU	191	66.674	65.661	14.062	1.00	21.70	A	C
ATOM	1316	CB	GLU	191	67.796	64.653	13.851	1.00	23.41	A	C
ATOM	1317	CG	GLU	191	67.894	63.598	14.937	1.00	29.95	A	C
ATOM	1318	CD	GLU	191	69.018	62.605	14.689	1.00	30.89	A	C
ATOM	1319	OE1	GLU	191	68.970	61.497	15.262	1.00	33.70	A	O
ATOM	1320	OE2	GLU	191	69.952	62.932	13.929	1.00	33.21	A	O
ATOM	1321	C	GLU	191	67.015	66.583	15.236	1.00	21.53	A	C
ATOM	1322	O	GLU	191	67.930	67.397	15.156	1.00	22.21	A	O

(Continued)

FIG. 4-28

ATOM	1323	N	ASP	192	66.262	66.451	16.320	1.00	21.17	A	N
ATOM	1324	CA	ASP	192	66.470	67.246	17.525	1.00	22.27	A	C
ATOM	1325	CB	ASP	192	67.810	66.880	18.182	1.00	23.92	A	C
ATOM	1326	CG	ASP	192	67.922	65.400	18.510	1.00	25.20	A	C
ATOM	1327	OD1	ASP	192	66.891	64.775	18.850	1.00	25.70	A	O
ATOM	1328	OD2	ASP	192	69.049	64.866	18.438	1.00	26.25	A	O
ATOM	1329	C	ASP	192	66.425	68.759	17.341	1.00	21.93	A	C
ATOM	1330	O	ASP	192	66.998	69.489	18.145	1.00	22.78	A	O
ATOM	1331	N	ILE	193	65.748	69.242	16.304	1.00	21.66	A	N
ATOM	1332	CA	ILE	193	65.685	70.684	16.071	1.00	20.08	A	C
ATOM	1333	CB	ILE	193	66.747	71.113	15.039	1.00	20.73	A	C
ATOM	1334	CG2	ILE	193	66.570	72.567	14.677	1.00	18.91	A	C
ATOM	1335	CG1	ILE	193	68.142	70.889	15.624	1.00	22.58	A	C
ATOM	1336	CD1	ILE	193	69.263	71.198	14.671	1.00	26.43	A	C
ATOM	1337	C	ILE	193	64.318	71.172	15.615	1.00	19.15	A	C
ATOM	1338	O	ILE	193	63.736	72.068	16.220	1.00	19.55	A	O
ATOM	1339	N	ILE	194	63.814	70.594	14.534	1.00	19.04	A	N
ATOM	1340	CA	ILE	194	62.506	70.967	14.021	1.00	17.41	A	C
ATOM	1341	CB	ILE	194	62.596	71.547	12.587	1.00	18.89	A	C
ATOM	1342	CG2	ILE	194	61.209	71.944	12.095	1.00	16.97	A	C
ATOM	1343	CG1	ILE	194	63.551	72.750	12.553	1.00	19.26	A	C
ATOM	1344	CD1	ILE	194	63.118	73.936	13.395	1.00	16.78	A	C
ATOM	1345	C	ILE	194	61.663	69.702	13.969	1.00	18.22	A	C
ATOM	1346	O	ILE	194	62.066	68.713	13.349	1.00	17.31	A	O
ATOM	1347	N	TYR	195	60.511	69.726	14.642	1.00	17.31	A	N
ATOM	1348	CA	TYR	195	59.592	68.593	14.639	1.00	16.19	A	C
ATOM	1349	CB	TYR	195	59.338	68.071	16.053	1.00	17.03	A	C
ATOM	1350	CG	TYR	195	60.560	67.776	16.893	1.00	17.58	A	C
ATOM	1351	CD1	TYR	195	61.427	68.802	17.286	1.00	18.28	A	C
ATOM	1352	CE1	TYR	195	62.485	68.558	18.145	1.00	16.45	A	C
ATOM	1353	CD2	TYR	195	60.799	66.490	17.377	1.00	15.00	A	C
ATOM	1354	CE2	TYR	195	61.859	66.237	18.240	1.00	15.14	A	C
ATOM	1355	CZ	TYR	195	62.694	67.275	18.624	1.00	17.41	A	C
ATOM	1356	OH	TYR	195	63.725	67.041	19.515	1.00	21.26	A	O
ATOM	1357	C	TYR	195	58.242	69.016	14.047	1.00	16.29	A	C
ATOM	1358	O	TYR	195	57.574	69.902	14.586	1.00	15.85	A	O
ATOM	1359	N	ASN	196	57.851	68.380	12.942	1.00	15.27	A	N
ATOM	1360	CA	ASN	196	56.578	68.656	12.286	1.00	12.88	A	C
ATOM	1361	CB	ASN	196	56.772	68.894	10.790	1.00	13.47	A	C
ATOM	1362	CG	ASN	196	57.591	70.133	10.489	1.00	14.66	A	C
ATOM	1363	OD1	ASN	196	57.132	71.261	10.678	1.00	10.34	A	O
ATOM	1364	ND2	ASN	196	58.819	69.927	10.013	1.00	15.26	A	N
ATOM	1365	C	ASN	196	55.686	67.438	12.457	1.00	14.12	A	C
ATOM	1366	O	ASN	196	56.050	66.347	12.044	1.00	16.31	A	O
ATOM	1367	N	GLY	197	54.522	67.613	13.065	1.00	14.48	A	N
ATOM	1368	CA	GLY	197	53.622	66.488	13.231	1.00	15.17	A	C
ATOM	1369	C	GLY	197	53.880	65.638	14.458	1.00	15.48	A	C
ATOM	1370	O	GLY	197	53.059	64.799	14.815	1.00	15.55	A	O
ATOM	1371	N	ILE	198	55.023	65.846	15.098	1.00	16.49	A	N

(Continued)

FIG. 4-29

ATOM	1372	CA	ILE	198	55.378	65.097	16.298	1.00	16.59	A C
ATOM	1373	CB	ILE	198	56.425	63.991	16.011	1.00	18.21	A C
ATOM	1374	CG2	ILE	198	55.874	63.013	14.987	1.00	18.51	A C
ATOM	1375	CG1	ILE	198	57.724	64.602	15.494	1.00	17.86	A C
ATOM	1376	CD1	ILE	198	58.798	63.565	15.214	1.00	19.35	A C
ATOM	1377	C	ILE	198	55.946	66.057	17.318	1.00	15.95	A C
ATOM	1378	O	ILE	198	56.507	67.091	16.966	1.00	17.63	A O
ATOM	1379	N	THR	199	55.809	65.700	18.583	1.00	15.42	A N
ATOM	1380	CA	THR	199	56.264	66.547	19.672	1.00	16.68	A C
ATOM	1381	CB	THR	199	55.374	66.316	20.908	1.00	17.40	A C
ATOM	1382	OG1	THR	199	55.462	64.944	21.301	1.00	18.82	A O
ATOM	1383	CG2	THR	199	53.924	66.619	20.583	1.00	15.72	A C
ATOM	1384	C	THR	199	57.716	66.334	20.076	1.00	16.00	A C
ATOM	1385	O	THR	199	58.317	65.325	19.734	1.00	16.12	A O
ATOM	1386	N	ASP	200	58.276	67.301	20.801	1.00	16.87	A N
ATOM	1387	CA	ASP	200	59.649	67.193	21.289	1.00	15.49	A C
ATOM	1388	CB	ASP	200	60.315	68.576	21.418	1.00	14.82	A C
ATOM	1389	CG	ASP	200	59.681	69.446	22.491	1.00	17.16	A C
ATOM	1390	OD1	ASP	200	58.517	69.190	22.873	1.00	16.41	A O
ATOM	1391	OD2	ASP	200	60.348	70.403	22.945	1.00	15.97	A O
ATOM	1392	C	ASP	200	59.496	66.515	22.641	1.00	15.54	A C
ATOM	1393	O	ASP	200	58.388	66.118	22.999	1.00	17.01	A O
ATOM	1394	N	TRP	201	60.581	66.381	23.395	1.00	15.10	A N
ATOM	1395	CA	TRP	201	60.504	65.699	24.672	1.00	13.14	A C
ATOM	1396	CB	TRP	201	61.885	65.619	25.326	1.00	14.90	A C
ATOM	1397	CG	TRP	201	61.905	64.679	26.510	1.00	15.25	A C
ATOM	1398	CD2	TRP	201	61.412	64.953	27.828	1.00	13.65	A C
ATOM	1399	CE2	TRP	201	61.500	63.753	28.564	1.00	13.52	A C
ATOM	1400	CE3	TRP	201	60.902	66.096	28.456	1.00	11.78	A C
ATOM	1401	CD1	TRP	201	62.269	63.360	26.507	1.00	13.81	A C
ATOM	1402	NE1	TRP	201	62.025	62.799	27.733	1.00	13.64	A N
ATOM	1403	CZ2	TRP	201	61.096	63.661	29.897	1.00	14.03	A C
ATOM	1404	CZ3	TRP	201	60.502	66.009	29.778	1.00	12.04	A C
ATOM	1405	CH2	TRP	201	60.601	64.797	30.486	1.00	14.87	A C
ATOM	1406	C	TRP	201	59.529	66.327	25.662	1.00	14.42	A C
ATOM	1407	O	TRP	201	58.635	65.656	26.175	1.00	13.63	A O
ATOM	1408	N	VAL	202	59.691	67.615	25.931	1.00	15.14	A N
ATOM	1409	CA	VAL	202	58.830	68.265	26.911	1.00	14.23	A C
ATOM	1410	CB	VAL	202	59.402	69.639	27.330	1.00	12.99	A C
ATOM	1411	CG1	VAL	202	59.010	70.716	26.322	1.00	11.02	A C
ATOM	1412	CG2	VAL	202	58.947	69.963	28.753	1.00	8.71	A C
ATOM	1413	C	VAL	202	57.365	68.401	26.518	1.00	15.76	A C
ATOM	1414	O	VAL	202	56.497	68.404	27.391	1.00	18.74	A O
ATOM	1415	N	TYR	203	57.072	68.518	25.226	1.00	15.58	A N
ATOM	1416	CA	TYR	203	55.676	68.606	24.805	1.00	14.25	A C
ATOM	1417	CB	TYR	203	55.556	69.078	23.354	1.00	14.63	A C
ATOM	1418	CG	TYR	203	55.227	70.542	23.227	1.00	12.35	A C
ATOM	1419	CD1	TYR	203	56.231	71.508	23.193	1.00	11.91	A C
ATOM	1420	CE1	TYR	203	55.920	72.867	23.108	1.00	11.20	A C

(Continued)

FIG. 4-30

ATOM	1421	CD2	TYR	203	53.902	70.966	23.177	1.00	12.17	A	C
ATOM	1422	CE2	TYR	203	53.579	72.314	23.099	1.00	10.57	A	C
ATOM	1423	CZ	TYR	203	54.588	73.259	23.061	1.00	9.67	A	C
ATOM	1424	OH	TYR	203	54.259	74.586	22.970	1.00	7.05	A	O
ATOM	1425	C	TYR	203	55.024	67.234	24.951	1.00	14.92	A	C
ATOM	1426	O	TYR	203	53.896	67.124	25.406	1.00	15.28	A	O
ATOM	1427	N	GLU	204	55.744	66.185	24.570	1.00	16.35	A	N
ATOM	1428	CA	GLU	204	55.222	64.826	24.684	1.00	16.96	A	C
ATOM	1429	CB	GLU	204	56.238	63.812	24.130	1.00	14.28	A	C
ATOM	1430	CG	GLU	204	55.928	62.380	24.540	1.00	14.97	A	C
ATOM	1431	CD	GLU	204	56.872	61.345	23.947	1.00	19.54	A	C
ATOM	1432	OE1	GLU	204	56.697	60.144	24.271	1.00	18.49	A	O
ATOM	1433	OE2	GLU	204	57.778	61.714	23.160	1.00	18.73	A	O
ATOM	1434	C	GLU	204	54.868	64.431	26.128	1.00	18.02	A	C
ATOM	1435	O	GLU	204	53.816	63.848	26.388	1.00	17.48	A	O
ATOM	1436	N	GLU	205	55.757	64.761	27.059	1.00	18.67	A	N
ATOM	1437	CA	GLU	205	55.589	64.409	28.459	1.00	20.30	A	C
ATOM	1438	CB	GLU	205	56.970	64.250	29.096	1.00	20.92	A	C
ATOM	1439	CG	GLU	205	56.958	64.035	30.592	1.00	24.62	A	C
ATOM	1440	CD	GLU	205	56.563	62.625	30.974	1.00	28.17	A	C
ATOM	1441	OE1	GLU	205	56.398	62.355	32.182	1.00	32.15	A	O
ATOM	1442	OE2	GLU	205	56.424	61.778	30.069	1.00	31.11	A	O
ATOM	1443	C	GLU	205	54.760	65.362	29.319	1.00	22.25	A	C
ATOM	1444	O	GLU	205	53.996	64.915	30.164	1.00	22.34	A	O
ATOM	1445	N	GLU	206	54.902	66.666	29.107	1.00	22.70	A	N
ATOM	1446	CA	GLU	206	54.202	67.632	29.939	1.00	23.19	A	C
ATOM	1447	CB	GLU	206	55.203	68.667	30.453	1.00	25.39	A	C
ATOM	1448	CG	GLU	206	56.466	68.088	31.080	1.00	27.87	A	C
ATOM	1449	CD	GLU	206	56.188	67.307	32.345	1.00	29.45	A	C
ATOM	1450	OE1	GLU	206	57.160	66.855	32.987	1.00	29.92	A	O
ATOM	1451	OE2	GLU	206	55.000	67.144	32.696	1.00	29.12	A	O
ATOM	1452	C	GLU	206	53.024	68.378	29.324	1.00	24.91	A	C
ATOM	1453	O	GLU	206	52.175	68.885	30.051	1.00	24.03	A	O
ATOM	1454	N	VAL	207	52.957	68.452	27.999	1.00	25.41	A	N
ATOM	1455	CA	VAL	207	51.880	69.199	27.375	1.00	25.29	A	C
ATOM	1456	CB	VAL	207	52.444	70.235	26.398	1.00	25.95	A	C
ATOM	1457	CG1	VAL	207	51.324	71.114	25.876	1.00	28.49	A	C
ATOM	1458	CG2	VAL	207	53.496	71.080	27.092	1.00	26.77	A	C
ATOM	1459	C	VAL	207	50.801	68.409	26.653	1.00	26.09	A	C
ATOM	1460	O	VAL	207	49.617	68.703	26.813	1.00	27.62	A	O
ATOM	1461	N	PHE	208	51.194	67.412	25.865	1.00	26.41	A	N
ATOM	1462	CA	PHE	208	50.228	66.620	25.105	1.00	26.03	A	C
ATOM	1463	CB	PHE	208	50.557	66.676	23.607	1.00	27.43	A	C
ATOM	1464	CG	PHE	208	50.234	67.994	22.962	1.00	28.64	A	C
ATOM	1465	CD1	PHE	208	51.234	68.911	22.679	1.00	29.07	A	C
ATOM	1466	CD2	PHE	208	48.918	68.328	22.660	1.00	30.01	A	C
ATOM	1467	CE1	PHE	208	50.929	70.142	22.104	1.00	30.28	A	C
ATOM	1468	CE2	PHE	208	48.604	69.556	22.086	1.00	30.23	A	C
ATOM	1469	CZ	PHE	208	49.612	70.464	21.809	1.00	30.40	A	C

(Continued)

FIG. 4-31

ATOM	1470	C	PHE	208	50.082	65.163	25.506	1.00	26.13	A	C
ATOM	1471	O	PHE	208	49.215	64.471	24.985	1.00	27.79	A	O
ATOM	1472	N	SER	209	50.918	64.687	26.421	1.00	26.62	A	N
ATOM	1473	CA	SER	209	50.852	63.293	26.848	1.00	25.74	A	C
ATOM	1474	CB	SER	209	49.645	63.059	27.743	1.00	24.80	A	C
ATOM	1475	OG	SER	209	49.871	63.629	29.014	1.00	29.47	A	O
ATOM	1476	C	SER	209	50.773	62.377	25.642	1.00	25.50	A	C
ATOM	1477	O	SER	209	50.278	61.249	25.716	1.00	25.72	A	O
ATOM	1478	N	ALA	210	51.272	62.875	24.524	1.00	23.72	A	N
ATOM	1479	CA	ALA	210	51.263	62.112	23.299	1.00	22.80	A	C
ATOM	1480	CB	ALA	210	49.977	62.364	22.530	1.00	20.62	A	C
ATOM	1481	C	ALA	210	52.455	62.560	22.492	1.00	21.87	A	C
ATOM	1482	O	ALA	210	52.986	63.644	22.703	1.00	22.09	A	O
ATOM	1483	N	TYR	211	52.863	61.719	21.558	1.00	21.57	A	N
ATOM	1484	CA	TYR	211	54.000	62.009	20.718	1.00	21.42	A	C
ATOM	1485	CB	TYR	211	54.725	60.711	20.405	1.00	19.58	A	C
ATOM	1486	CG	TYR	211	55.921	60.870	19.528	1.00	16.81	A	C
ATOM	1487	CD1	TYR	211	56.853	61.870	19.770	1.00	16.07	A	C
ATOM	1488	CE1	TYR	211	58.002	61.971	19.001	1.00	18.18	A	C
ATOM	1489	CD2	TYR	211	56.160	59.976	18.489	1.00	17.91	A	C
ATOM	1490	CE2	TYR	211	57.306	60.065	17.716	1.00	18.80	A	C
ATOM	1491	CZ	TYR	211	58.221	61.063	17.979	1.00	18.36	A	C
ATOM	1492	OH	TYR	211	59.360	61.149	17.224	1.00	23.65	A	O
ATOM	1493	C	TYR	211	53.588	62.689	19.428	1.00	22.96	A	C
ATOM	1494	O	TYR	211	54.365	63.443	18.837	1.00	25.79	A	O
ATOM	1495	N	SER	212	52.365	62.433	18.983	1.00	20.96	A	N
ATOM	1496	CA	SER	212	51.918	63.033	17.746	1.00	19.56	A	C
ATOM	1497	CB	SER	212	50.835	62.175	17.090	1.00	20.97	A	C
ATOM	1498	OG	SER	212	49.635	62.208	17.829	1.00	21.79	A	O
ATOM	1499	C	SER	212	51.397	64.439	17.959	1.00	18.50	A	C
ATOM	1500	O	SER	212	50.933	64.789	19.040	1.00	16.31	A	O
ATOM	1501	N	ALA	213	51.493	65.236	16.901	1.00	17.84	A	N
ATOM	1502	CA	ALA	213	51.036	66.610	16.903	1.00	16.02	A	C
ATOM	1503	CB	ALA	213	52.193	67.548	17.224	1.00	14.16	A	C
ATOM	1504	C	ALA	213	50.429	66.935	15.526	1.00	15.57	A	C
ATOM	1505	O	ALA	213	50.857	67.862	14.833	1.00	13.25	A	O
ATOM	1506	N	LEU	214	49.448	66.132	15.129	1.00	14.75	A	N
ATOM	1507	CA	LEU	214	48.734	66.339	13.874	1.00	16.09	A	C
ATOM	1508	CB	LEU	214	49.353	65.517	12.735	1.00	16.40	A	C
ATOM	1509	CG	LEU	214	49.482	63.999	12.823	1.00	17.01	A	C
ATOM	1510	CD1	LEU	214	48.135	63.342	12.628	1.00	18.97	A	C
ATOM	1511	CD2	LEU	214	50.434	63.535	11.742	1.00	16.98	A	C
ATOM	1512	C	LEU	214	47.273	65.963	14.124	1.00	16.65	A	C
ATOM	1513	O	LEU	214	46.966	64.933	14.728	1.00	18.12	A	O
ATOM	1514	N	TRP	215	46.366	66.811	13.666	1.00	16.16	A	N
ATOM	1515	CA	TRP	215	44.959	66.590	13.907	1.00	14.69	A	C
ATOM	1516	CB	TRP	215	44.471	67.663	14.863	1.00	15.49	A	C
ATOM	1517	CG	TRP	215	45.230	67.669	16.145	1.00	17.52	A	C
ATOM	1518	CD2	TRP	215	46.482	68.325	16.403	1.00	17.74	A	C

(Continued)

FIG. 4-32

ATOM	1519	CE2	TRP	215	46.852	68.008	17.729	1.00	17.50	A	C
ATOM	1520	CE3	TRP	215	47.325	69.149	15.643	1.00	18.21	A	C
ATOM	1521	CD1	TRP	215	44.904	67.004	17.289	1.00	15.79	A	C
ATOM	1522	NE1	TRP	215	45.873	67.202	18.243	1.00	17.35	A	N
ATOM	1523	CZ2	TRP	215	48.033	68.485	18.318	1.00	18.06	A	C
ATOM	1524	CZ3	TRP	215	48.505	69.625	16.228	1.00	18.96	A	C
ATOM	1525	CH2	TRP	215	48.844	69.289	17.555	1.00	18.21	A	C
ATOM	1526	C	TRP	215	44.110	66.605	12.661	1.00	15.55	A	C
ATOM	1527	O	TRP	215	43.869	67.668	12.090	1.00	16.18	A	O
ATOM	1528	N	TRP	216	43.646	65.430	12.244	1.00	15.31	A	N
ATOM	1529	CA	TRP	216	42.793	65.330	11.069	1.00	16.40	A	C
ATOM	1530	CB	TRP	216	42.494	63.873	10.739	1.00	16.43	A	C
ATOM	1531	CG	TRP	216	43.549	63.114	10.002	1.00	17.38	A	C
ATOM	1532	CD2	TRP	216	43.823	63.169	8.599	1.00	17.01	A	C
ATOM	1533	CE2	TRP	216	44.794	62.176	8.320	1.00	17.25	A	C
ATOM	1534	CE3	TRP	216	43.340	63.954	7.549	1.00	17.09	A	C
ATOM	1535	CD1	TRP	216	44.352	62.125	10.508	1.00	18.55	A	C
ATOM	1536	NE1	TRP	216	45.098	61.553	9.501	1.00	18.07	A	N
ATOM	1537	CZ2	TRP	216	45.286	61.951	7.036	1.00	15.24	A	C
ATOM	1538	CZ3	TRP	216	43.829	63.729	6.270	1.00	17.06	A	C
ATOM	1539	CH2	TRP	216	44.794	62.734	6.027	1.00	17.07	A	C
ATOM	1540	C	TRP	216	41.461	66.016	11.355	1.00	17.17	A	C
ATOM	1541	O	TRP	216	40.990	66.005	12.487	1.00	18.00	A	O
ATOM	1542	N	SER	217	40.847	66.605	10.334	1.00	18.39	A	N
ATOM	1543	CA	SER	217	39.552	67.240	10.523	1.00	19.62	A	C
ATOM	1544	CB	SER	217	39.257	68.225	9.392	1.00	20.31	A	C
ATOM	1545	OG	SER	217	39.234	67.589	8.133	1.00	24.00	A	O
ATOM	1546	C	SER	217	38.528	66.108	10.550	1.00	20.47	A	C
ATOM	1547	O	SER	217	38.814	64.994	10.110	1.00	20.32	A	O
ATOM	1548	N	PRO	218	37.326	66.369	11.074	1.00	20.82	A	N
ATOM	1549	CD	PRO	218	36.827	67.650	11.598	1.00	20.28	A	C
ATOM	1550	CA	PRO	218	36.285	65.339	11.154	1.00	22.67	A	C
ATOM	1551	CB	PRO	218	35.033	66.148	11.462	1.00	21.68	A	C
ATOM	1552	CG	PRO	218	35.587	67.223	12.353	1.00	21.12	A	C
ATOM	1553	C	PRO	218	36.123	64.404	9.950	1.00	23.46	A	C
ATOM	1554	O	PRO	218	36.190	63.183	10.107	1.00	25.13	A	O
ATOM	1555	N	ASN	219	35.909	64.948	8.756	1.00	22.93	A	N
ATOM	1556	CA	ASN	219	35.756	64.071	7.600	1.00	22.31	A	C
ATOM	1557	CB	ASN	219	34.704	64.622	6.631	1.00	22.48	A	C
ATOM	1558	CG	ASN	219	35.172	65.849	5.903	1.00	24.12	A	C
ATOM	1559	OD1	ASN	219	36.373	66.076	5.760	1.00	26.01	A	O
ATOM	1560	ND2	ASN	219	34.230	66.640	5.411	1.00	26.27	A	N
ATOM	1561	C	ASN	219	37.090	63.841	6.871	1.00	21.20	A	C
ATOM	1562	O	ASN	219	37.115	63.307	5.760	1.00	20.94	A	O
ATOM	1563	N	GLY	220	38.184	64.267	7.499	1.00	18.33	A	N
ATOM	1564	CA	GLY	220	39.512	64.068	6.941	1.00	17.97	A	C
ATOM	1565	C	GLY	220	40.035	64.993	5.853	1.00	18.92	A	C
ATOM	1566	O	GLY	220	41.157	64.801	5.375	1.00	20.28	A	O
ATOM	1567	N	THR	221	39.242	65.980	5.447	1.00	17.57	A	N

(Continued)

FIG. 4-33

ATOM	1568	CA	THR	221	39.654	66.917	4.408	1.00	15.80	A	C
ATOM	1569	CB	THR	221	38.540	67.942	4.112	1.00	15.67	A	C
ATOM	1570	OG1	THR	221	37.410	67.269	3.550	1.00	16.41	A	O
ATOM	1571	CG2	THR	221	39.019	69.004	3.147	1.00	12.96	A	C
ATOM	1572	C	THR	221	40.903	67.674	4.833	1.00	16.70	A	C
ATOM	1573	O	THR	221	41.884	67.753	4.088	1.00	16.98	A	O
ATOM	1574	N	PHE	222	40.864	68.238	6.033	1.00	15.92	A	N
ATOM	1575	CA	PHE	222	41.999	69.001	6.539	1.00	15.88	A	C
ATOM	1576	CB	PHE	222	41.508	70.253	7.262	1.00	15.20	A	C
ATOM	1577	CG	PHE	222	40.939	71.305	6.356	1.00	14.35	A	C
ATOM	1578	CD1	PHE	222	39.569	71.542	6.323	1.00	11.89	A	C
ATOM	1579	CD2	PHE	222	41.782	72.097	5.571	1.00	14.45	A	C
ATOM	1580	CE1	PHE	222	39.046	72.550	5.533	1.00	13.50	A	C
ATOM	1581	CE2	PHE	222	41.269	73.112	4.771	1.00	12.61	A	C
ATOM	1582	CZ	PHE	222	39.897	73.342	4.751	1.00	15.23	A	C
ATOM	1583	C	PHE	222	42.907	68.228	7.494	1.00	16.13	A	C
ATOM	1584	O	PHE	222	42.467	67.327	8.211	1.00	16.82	A	O
ATOM	1585	N	LEU	223	44.187	68.582	7.484	1.00	15.93	A	N
ATOM	1586	CA	LEU	223	45.159	67.983	8.385	1.00	14.81	A	C
ATOM	1587	CB	LEU	223	46.199	67.142	7.645	1.00	14.64	A	C
ATOM	1588	CG	LEU	223	47.306	66.627	8.584	1.00	14.94	A	C
ATOM	1589	CD1	LEU	223	46.696	65.773	9.687	1.00	11.99	A	C
ATOM	1590	CD2	LEU	223	48.338	65.830	7.808	1.00	11.50	A	C
ATOM	1591	C	LEU	223	45.848	69.162	9.031	1.00	16.80	A	C
ATOM	1592	O	LEU	223	46.398	70.028	8.341	1.00	16.53	A	O
ATOM	1593	N	ALA	224	45.790	69.219	10.353	1.00	17.34	A	N
ATOM	1594	CA	ALA	224	46.420	70.308	11.073	1.00	18.47	A	C
ATOM	1595	CB	ALA	224	45.422	70.950	12.029	1.00	17.47	A	C
ATOM	1596	C	ALA	224	47.596	69.735	11.840	1.00	18.77	A	C
ATOM	1597	O	ALA	224	47.587	68.561	12.205	1.00	19.22	A	O
ATOM	1598	N	TYR	225	48.614	70.551	12.078	1.00	17.68	A	N
ATOM	1599	CA	TYR	225	49.764	70.068	12.819	1.00	17.56	A	C
ATOM	1600	CB	TYR	225	50.726	69.306	11.891	1.00	16.48	A	C
ATOM	1601	CG	TYR	225	51.273	70.108	10.726	1.00	15.05	A	C
ATOM	1602	CD1	TYR	225	50.551	70.235	9.533	1.00	13.44	A	C
ATOM	1603	CE1	TYR	225	51.050	70.968	8.456	1.00	9.19	A	C
ATOM	1604	CD2	TYR	225	52.514	70.740	10.814	1.00	14.42	A	C
ATOM	1605	CE2	TYR	225	53.025	71.476	9.744	1.00	14.09	A	C
ATOM	1606	CZ	TYR	225	52.286	71.583	8.567	1.00	14.11	A	C
ATOM	1607	OH	TYR	225	52.802	72.292	7.504	1.00	14.49	A	O
ATOM	1608	C	TYR	225	50.514	71.182	13.521	1.00	17.79	A	C
ATOM	1609	O	TYR	225	50.326	72.359	13.229	1.00	19.91	A	O
ATOM	1610	N	ALA	226	51.358	70.796	14.462	1.00	17.65	A	N
ATOM	1611	CA	ALA	226	52.164	71.748	15.201	1.00	17.74	A	C
ATOM	1612	CB	ALA	226	52.060	71.472	16.687	1.00	18.89	A	C
ATOM	1613	C	ALA	226	53.601	71.575	14.740	1.00	17.39	A	C
ATOM	1614	O	ALA	226	53.966	70.527	14.204	1.00	16.05	A	O
ATOM	1615	N	GLN	227	54.412	72.606	14.941	1.00	17.45	A	N
ATOM	1616	CA	GLN	227	55.816	72.552	14.555	1.00	16.64	A	C

(Continued)

FIG. 4-34

ATOM	1617	CB	GLN	227	56.096	73.423	13.331	1.00	15.62	A	C
ATOM	1618	CG	GLN	227	57.514	73.246	12.799	1.00	16.35	A	C
ATOM	1619	CD	GLN	227	57.847	74.191	11.666	1.00	14.31	A	C
ATOM	1620	OE1	GLN	227	57.877	75.408	11.851	1.00	18.11	A	O
ATOM	1621	NE2	GLN	227	58.101	73.639	10.486	1.00	12.45	A	N
ATOM	1622	C	GLN	227	56.615	73.073	15.723	1.00	16.27	A	C
ATOM	1623	O	GLN	227	56.346	74.159	16.225	1.00	16.33	A	O
ATOM	1624	N	PHE	228	57.601	72.301	16.158	1.00	17.36	A	N
ATOM	1625	CA	PHE	228	58.414	72.717	17.287	1.00	16.81	A	C
ATOM	1626	CB	PHE	228	58.327	71.686	18.412	1.00	14.62	A	C
ATOM	1627	CG	PHE	228	56.919	71.295	18.758	1.00	14.48	A	C
ATOM	1628	CD1	PHE	228	56.317	70.196	18.141	1.00	14.37	A	C
ATOM	1629	CD2	PHE	228	56.183	72.036	19.674	1.00	12.73	A	C
ATOM	1630	CE1	PHE	228	55.007	69.840	18.430	1.00	13.56	A	C
ATOM	1631	CE2	PHE	228	54.870	71.691	19.971	1.00	14.73	A	C
ATOM	1632	CZ	PHE	228	54.279	70.588	19.348	1.00	15.31	A	C
ATOM	1633	C	PHE	228	59.848	72.922	16.859	1.00	18.12	A	C
ATOM	1634	O	PHE	228	60.410	72.121	16.112	1.00	17.47	A	O
ATOM	1635	N	ASN	229	60.413	74.027	17.335	1.00	20.00	A	N
ATOM	1636	CA	ASN	229	61.779	74.435	17.042	1.00	20.87	A	C
ATOM	1637	CB	ASN	229	61.767	75.857	16.474	1.00	21.57	A	C
ATOM	1638	CG	ASN	229	63.086	76.257	15.870	1.00	24.35	A	C
ATOM	1639	OD1	ASN	229	64.141	75.774	16.289	1.00	26.00	A	O
ATOM	1640	ND2	ASN	229	63.025	77.153	14.887	1.00	25.62	A	N
ATOM	1641	C	ASN	229	62.540	74.421	18.362	1.00	21.39	A	C
ATOM	1642	O	ASN	229	62.232	75.200	19.269	1.00	21.52	A	O
ATOM	1643	N	ASP	230	63.516	73.530	18.481	1.00	20.96	A	N
ATOM	1644	CA	ASP	230	64.300	73.444	19.706	1.00	22.78	A	C
ATOM	1645	CB	ASP	230	64.275	72.026	20.268	1.00	22.69	A	C
ATOM	1646	CG	ASP	230	62.880	71.551	20.580	1.00	22.37	A	C
ATOM	1647	OD1	ASP	230	62.681	71.015	21.689	1.00	21.57	A	O
ATOM	1648	OD2	ASP	230	61.993	71.705	19.713	1.00	21.82	A	O
ATOM	1649	C	ASP	230	65.734	73.825	19.412	1.00	24.50	A	C
ATOM	1650	O	ASP	230	66.663	73.252	19.979	1.00	24.72	A	O
ATOM	1651	N	THR	231	65.904	74.803	18.527	1.00	25.87	A	N
ATOM	1652	CA	THR	231	67.228	75.245	18.122	1.00	26.22	A	C
ATOM	1653	CB	THR	231	67.149	76.406	17.109	1.00	27.87	A	C
ATOM	1654	OG1	THR	231	66.540	75.947	15.893	1.00	28.62	A	O
ATOM	1655	CG2	THR	231	68.545	76.947	16.813	1.00	26.63	A	C
ATOM	1656	C	THR	231	68.099	75.688	19.280	1.00	26.77	A	C
ATOM	1657	O	THR	231	69.254	75.277	19.375	1.00	27.34	A	O
ATOM	1658	N	GLU	232	67.550	76.519	20.163	1.00	25.50	A	N
ATOM	1659	CA	GLU	232	68.329	77.020	21.285	1.00	24.52	A	C
ATOM	1660	CB	GLU	232	68.154	78.526	21.397	1.00	28.36	A	C
ATOM	1661	CG	GLU	232	68.615	79.281	20.171	1.00	34.72	A	C
ATOM	1662	CD	GLU	232	68.483	80.780	20.338	1.00	40.02	A	C
ATOM	1663	OE1	GLU	232	68.767	81.509	19.363	1.00	44.21	A	O
ATOM	1664	OE2	GLU	232	68.100	81.232	21.444	1.00	42.26	A	O
ATOM	1665	C	GLU	232	68.020	76.377	22.627	1.00	22.97	A	C

(Continued)

FIG. 4-35

ATOM	1666	O	GLU	232	68.331	76.942	23.679	1.00	20.81	A	O
ATOM	1667	N	VAL	233	67.416	75.194	22.596	1.00	20.32	A	N
ATOM	1668	CA	VAL	233	67.091	74.499	23.832	1.00	17.88	A	C
ATOM	1669	CB	VAL	233	65.853	73.618	23.648	1.00	17.88	A	C
ATOM	1670	CG1	VAL	233	65.522	72.925	24.957	1.00	14.00	A	C
ATOM	1671	CG2	VAL	233	64.678	74.478	23.160	1.00	16.73	A	C
ATOM	1672	C	VAL	233	68.261	73.642	24.304	1.00	16.00	A	C
ATOM	1673	O	VAL	233	68.694	72.728	23.606	1.00	15.94	A	O
ATOM	1674	N	PRO	234	68.788	73.927	25.504	1.00	14.51	A	N
ATOM	1675	CD	PRO	234	68.313	74.907	26.494	1.00	13.03	A	C
ATOM	1676	CA	PRO	234	69.914	73.162	26.040	1.00	13.93	A	C
ATOM	1677	CB	PRO	234	70.031	73.677	27.473	1.00	12.63	A	C
ATOM	1678	CG	PRO	234	69.517	75.059	27.377	1.00	11.32	A	C
ATOM	1679	C	PRO	234	69.643	71.663	25.987	1.00	16.20	A	C
ATOM	1680	O	PRO	234	68.487	71.220	26.041	1.00	15.73	A	O
ATOM	1681	N	LEU	235	70.716	70.887	25.900	1.00	16.28	A	N
ATOM	1682	CA	LEU	235	70.602	69.443	25.825	1.00	16.91	A	C
ATOM	1683	CB	LEU	235	71.505	68.912	24.718	1.00	18.54	A	C
ATOM	1684	CG	LEU	235	71.267	69.349	23.273	1.00	21.93	A	C
ATOM	1685	CD1	LEU	235	72.434	68.856	22.412	1.00	21.90	A	C
ATOM	1686	CD2	LEU	235	69.946	68.790	22.768	1.00	19.17	A	C
ATOM	1687	C	LEU	235	70.990	68.743	27.118	1.00	17.26	A	C
ATOM	1688	O	LEU	235	71.939	69.157	27.793	1.00	18.36	A	O
ATOM	1689	N	ILE	236	70.244	67.696	27.472	1.00	14.95	A	N
ATOM	1690	CA	ILE	236	70.586	66.899	28.644	1.00	12.68	A	C
ATOM	1691	CB	ILE	236	69.345	66.245	29.335	1.00	10.50	A	C
ATOM	1692	CG2	ILE	236	68.538	65.433	28.329	1.00	9.32	A	C
ATOM	1693	CG1	ILE	236	69.806	65.298	30.448	1.00	8.74	A	C
ATOM	1694	CD1	ILE	236	70.789	65.919	31.427	1.00	7.11	A	C
ATOM	1695	C	ILE	236	71.444	65.802	28.010	1.00	12.84	A	C
ATOM	1696	O	ILE	236	71.105	65.276	26.942	1.00	10.11	A	O
ATOM	1697	N	GLU	237	72.558	65.480	28.650	1.00	12.44	A	N
ATOM	1698	CA	GLU	237	73.463	64.470	28.128	1.00	14.46	A	C
ATOM	1699	CB	GLU	237	74.767	65.128	27.655	1.00	13.45	A	C
ATOM	1700	CG	GLU	237	74.554	66.079	26.500	1.00	18.02	A	C
ATOM	1701	CD	GLU	237	75.845	66.500	25.819	1.00	23.46	A	C
ATOM	1702	OE1	GLU	237	75.779	67.016	24.683	1.00	25.80	A	O
ATOM	1703	OE2	GLU	237	76.928	66.324	26.408	1.00	26.23	A	O
ATOM	1704	C	GLU	237	73.744	63.427	29.191	1.00	13.41	A	C
ATOM	1705	O	GLU	237	73.895	63.752	30.363	1.00	14.43	A	O
ATOM	1706	N	TYR	238	73.801	62.169	28.781	1.00	12.83	A	N
ATOM	1707	CA	TYR	238	74.052	61.093	29.721	1.00	14.06	A	C
ATOM	1708	CB	TYR	238	72.810	60.840	30.595	1.00	12.42	A	C
ATOM	1709	CG	TYR	238	71.566	60.419	29.856	1.00	11.79	A	C
ATOM	1710	CD1	TYR	238	71.451	59.139	29.317	1.00	16.12	A	C
ATOM	1711	CE1	TYR	238	70.292	58.739	28.635	1.00	17.09	A	C
ATOM	1712	CD2	TYR	238	70.496	61.295	29.701	1.00	12.13	A	C
ATOM	1713	CE2	TYR	238	69.336	60.913	29.020	1.00	12.94	A	C
ATOM	1714	CZ	TYR	238	69.243	59.634	28.487	1.00	15.48	A	C

(Continued)

FIG. 4-36

ATOM	1715	OH	TYR	238	68.127	59.257	27.775	1.00	15.96	A	O
ATOM	1716	C	TYR	238	74.445	59.847	28.954	1.00	15.25	A	C
ATOM	1717	O	TYR	238	74.059	59.667	27.798	1.00	17.74	A	O
ATOM	1718	N	SER	239	75.220	58.986	29.596	1.00	14.10	A	N
ATOM	1719	CA	SER	239	75.689	57.779	28.943	1.00	13.87	A	C
ATOM	1720	CB	SER	239	76.926	57.251	29.656	1.00	11.90	A	C
ATOM	1721	OG	SER	239	77.902	58.265	29.766	1.00	18.76	A	O
ATOM	1722	C	SER	239	74.661	56.668	28.879	1.00	13.45	A	C
ATOM	1723	O	SER	239	73.755	56.587	29.700	1.00	14.39	A	O
ATOM	1724	N	PHE	240	74.809	55.834	27.862	1.00	12.12	A	N
ATOM	1725	CA	PHE	240	73.972	54.678	27.679	1.00	12.95	A	C
ATOM	1726	CB	PHE	240	73.003	54.833	26.523	1.00	12.48	A	C
ATOM	1727	CG	PHE	240	71.896	53.843	26.574	1.00	11.50	A	C
ATOM	1728	CD1	PHE	240	70.824	54.037	27.436	1.00	10.15	A	C
ATOM	1729	CD2	PHE	240	71.980	52.655	25.858	1.00	11.95	A	C
ATOM	1730	CE1	PHE	240	69.859	53.064	27.597	1.00	10.78	A	C
ATOM	1731	CE2	PHE	240	71.018	51.675	26.012	1.00	11.03	A	C
ATOM	1732	CZ	PHE	240	69.954	51.878	26.888	1.00	10.46	A	C
ATOM	1733	C	PHE	240	75.018	53.652	27.330	1.00	14.83	A	C
ATOM	1734	O	PHE	240	75.722	53.805	26.335	1.00	18.18	A	O
ATOM	1735	N	TYR	241	75.129	52.617	28.153	1.00	13.74	A	N
ATOM	1736	CA	TYR	241	76.147	51.612	27.958	1.00	13.29	A	C
ATOM	1737	CB	TYR	241	76.526	51.057	29.329	1.00	13.69	A	C
ATOM	1738	CG	TYR	241	76.833	52.167	30.317	1.00	10.88	A	C
ATOM	1739	CD1	TYR	241	78.065	52.821	30.308	1.00	11.93	A	C
ATOM	1740	CE1	TYR	241	78.326	53.894	31.168	1.00	9.47	A	C
ATOM	1741	CD2	TYR	241	75.862	52.610	31.218	1.00	12.15	A	C
ATOM	1742	CE2	TYR	241	76.106	53.678	32.080	1.00	11.02	A	C
ATOM	1743	CZ	TYR	241	77.338	54.319	32.046	1.00	12.15	A	C
ATOM	1744	OH	TYR	241	77.556	55.408	32.859	1.00	10.38	A	O
ATOM	1745	C	TYR	241	75.793	50.510	26.967	1.00	14.62	A	C
ATOM	1746	O	TYR	241	76.686	49.948	26.322	1.00	12.20	A	O
ATOM	1747	N	SER	242	74.501	50.204	26.837	1.00	16.13	A	N
ATOM	1748	CA	SER	242	74.053	49.180	25.888	1.00	16.13	A	C
ATOM	1749	CB	SER	242	74.464	49.590	24.469	1.00	16.30	A	C
ATOM	1750	OG	SER	242	74.004	48.674	23.496	1.00	17.85	A	O
ATOM	1751	C	SER	242	74.647	47.816	26.226	1.00	17.46	A	C
ATOM	1752	O	SER	242	75.219	47.625	27.303	1.00	19.13	A	O
ATOM	1753	N	ASP	243	74.516	46.865	25.312	1.00	19.34	A	N
ATOM	1754	CA	ASP	243	75.066	45.535	25.548	1.00	23.36	A	C
ATOM	1755	CB	ASP	243	74.774	44.605	24.369	1.00	27.30	A	C
ATOM	1756	CG	ASP	243	73.290	44.419	24.132	1.00	33.83	A	C
ATOM	1757	OD1	ASP	243	72.549	44.246	25.126	1.00	36.97	A	O
ATOM	1758	OD2	ASP	243	72.862	44.438	22.955	1.00	37.15	A	O
ATOM	1759	C	ASP	243	76.572	45.554	25.805	1.00	23.56	A	C
ATOM	1760	O	ASP	243	77.298	46.432	25.330	1.00	22.48	A	O
ATOM	1761	N	GLU	244	77.016	44.559	26.567	1.00	24.45	A	N
ATOM	1762	CA	GLU	244	78.412	44.363	26.944	1.00	22.80	A	C
ATOM	1763	CB	GLU	244	78.534	42.984	27.605	1.00	23.73	A	C

(Continued)

FIG. 4-37

ATOM	1764	CG	GLU	244	79.940	42.547	27.995	1.00	29.35	A	C
ATOM	1765	CD	GLU	244	79.967	41.177	28.667	1.00	29.80	A	C
ATOM	1766	OE1	GLU	244	81.079	40.680	28.958	1.00	29.53	A	O
ATOM	1767	OE2	GLU	244	78.877	40.601	28.903	1.00	29.32	A	O
ATOM	1768	C	GLU	244	79.374	44.476	25.754	1.00	22.28	A	C
ATOM	1769	O	GLU	244	80.533	44.854	25.913	1.00	21.94	A	O
ATOM	1770	N	SER	245	78.888	44.159	24.561	1.00	21.62	A	N
ATOM	1771	CA	SER	245	79.724	44.205	23.370	1.00	19.92	A	C
ATOM	1772	CB	SER	245	79.080	43.402	22.244	1.00	19.31	A	C
ATOM	1773	OG	SER	245	77.949	44.068	21.723	1.00	17.93	A	O
ATOM	1774	C	SER	245	80.044	45.605	22.861	1.00	19.58	A	C
ATOM	1775	O	SER	245	80.874	45.762	21.971	1.00	21.35	A	O
ATOM	1776	N	LEU	246	79.392	46.628	23.397	1.00	18.69	A	N
ATOM	1777	CA	LEU	246	79.694	47.983	22.943	1.00	18.41	A	C
ATOM	1778	CB	LEU	246	78.522	48.926	23.229	1.00	18.20	A	C
ATOM	1779	CG	LEU	246	78.659	50.368	22.728	1.00	17.99	A	C
ATOM	1780	CD1	LEU	246	78.736	50.388	21.214	1.00	16.83	A	C
ATOM	1781	CD2	LEU	246	77.458	51.181	23.192	1.00	19.98	A	C
ATOM	1782	C	LEU	246	80.943	48.463	23.679	1.00	18.12	A	C
ATOM	1783	O	LEU	246	80.921	48.662	24.895	1.00	16.81	A	O
ATOM	1784	N	GLN	247	82.034	48.635	22.940	1.00	17.84	A	N
ATOM	1785	CA	GLN	247	83.295	49.073	23.532	1.00	17.30	A	C
ATOM	1786	CB	GLN	247	84.400	49.038	22.480	1.00	15.11	A	C
ATOM	1787	CG	GLN	247	85.791	49.234	23.045	1.00	17.62	A	C
ATOM	1788	CD	GLN	247	86.875	48.770	22.090	1.00	18.47	A	C
ATOM	1789	OE1	GLN	247	86.829	49.065	20.899	1.00	20.53	A	O
ATOM	1790	NE2	GLN	247	87.862	48.049	22.611	1.00	17.76	A	N
ATOM	1791	C	GLN	247	83.224	50.461	24.170	1.00	17.66	A	C
ATOM	1792	O	GLN	247	83.640	50.648	25.313	1.00	17.56	A	O
ATOM	1793	N	TYR	248	82.710	51.436	23.430	1.00	18.50	A	N
ATOM	1794	CA	TYR	248	82.592	52.794	23.954	1.00	19.00	A	C
ATOM	1795	CB	TYR	248	83.177	53.822	22.972	1.00	17.39	A	C
ATOM	1796	CG	TYR	248	84.684	53.820	22.860	1.00	16.80	A	C
ATOM	1797	CD1	TYR	248	85.353	52.812	22.172	1.00	17.20	A	C
ATOM	1798	CE1	TYR	248	86.742	52.814	22.058	1.00	17.58	A	C
ATOM	1799	CD2	TYR	248	85.444	54.838	23.437	1.00	17.77	A	C
ATOM	1800	CE2	TYR	248	86.839	54.851	23.333	1.00	17.22	A	C
ATOM	1801	CZ	TYR	248	87.479	53.836	22.647	1.00	18.42	A	C
ATOM	1802	OH	TYR	248	88.854	53.809	22.595	1.00	19.27	A	O
ATOM	1803	C	TYR	248	81.130	53.134	24.212	1.00	18.87	A	C
ATOM	1804	O	TYR	248	80.288	53.018	23.323	1.00	19.15	A	O
ATOM	1805	N	PRO	249	80.804	53.549	25.440	1.00	18.20	A	N
ATOM	1806	CD	PRO	249	81.610	53.595	26.668	1.00	18.21	A	C
ATOM	1807	CA	PRO	249	79.411	53.886	25.716	1.00	18.83	A	C
ATOM	1808	CB	PRO	249	79.424	54.222	27.206	1.00	19.46	A	C
ATOM	1809	CG	PRO	249	80.857	54.582	27.481	1.00	17.63	A	C
ATOM	1810	C	PRO	249	78.937	55.042	24.852	1.00	19.66	A	C
ATOM	1811	O	PRO	249	79.734	55.864	24.413	1.00	20.92	A	O
ATOM	1812	N	LYS	250	77.638	55.096	24.599	1.00	19.01	A	N

(Continued)

FIG. 4-38

ATOM	1813	CA	LYS	250	77.083	56.158	23.785	1.00	19.61	A	C
ATOM	1814	CB	LYS	250	75.933	55.618	22.936	1.00	23.51	A	C
ATOM	1815	CG	LYS	250	76.320	54.428	22.089	1.00	28.40	A	C
ATOM	1816	CD	LYS	250	75.197	54.010	21.152	1.00	30.62	A	C
ATOM	1817	CE	LYS	250	75.698	52.938	20.203	1.00	32.02	A	C
ATOM	1818	NZ	LYS	250	76.966	53.385	19.546	1.00	32.62	A	N
ATOM	1819	C	LYS	250	76.580	57.320	24.628	1.00	17.92	A	C
ATOM	1820	O	LYS	250	76.130	57.130	25.758	1.00	17.90	A	O
ATOM	1821	N	THR	251	76.663	58.524	24.077	1.00	14.61	A	N
ATOM	1822	CA	THR	251	76.171	59.689	24.786	1.00	15.48	A	C
ATOM	1823	CB	THR	251	77.104	60.887	24.666	1.00	13.61	A	C
ATOM	1824	OG1	THR	251	78.280	60.654	25.441	1.00	15.96	A	O
ATOM	1825	CG2	THR	251	76.414	62.137	25.181	1.00	13.93	A	C
ATOM	1826	C	THR	251	74.832	60.086	24.205	1.00	16.04	A	C
ATOM	1827	O	THR	251	74.755	60.572	23.083	1.00	17.34	A	O
ATOM	1828	N	VAL	252	73.779	59.860	24.977	1.00	15.27	A	N
ATOM	1829	CA	VAL	252	72.439	60.205	24.559	1.00	16.08	A	C
ATOM	1830	CB	VAL	252	71.405	59.381	25.355	1.00	16.76	A	C
ATOM	1831	CG1	VAL	252	69.987	59.832	25.014	1.00	16.29	A	C
ATOM	1832	CG2	VAL	252	71.595	57.895	25.050	1.00	13.65	A	C
ATOM	1833	C	VAL	252	72.223	61.699	24.799	1.00	18.46	A	C
ATOM	1834	O	VAL	252	72.443	62.212	25.905	1.00	19.01	A	O
ATOM	1835	N	ARG	253	71.799	62.398	23.754	1.00	19.18	A	N
ATOM	1836	CA	ARG	253	71.568	63.831	23.842	1.00	18.54	A	C
ATOM	1837	CB	ARG	253	72.574	64.567	22.949	1.00	19.46	A	C
ATOM	1838	CG	ARG	253	74.014	64.439	23.457	1.00	24.49	A	C
ATOM	1839	CD	ARG	253	75.021	65.066	22.519	1.00	29.04	A	C
ATOM	1840	NE	ARG	253	75.797	64.044	21.822	1.00	35.89	A	N
ATOM	1841	CZ	ARG	253	77.013	63.647	22.185	1.00	38.08	A	C
ATOM	1842	NH1	ARG	253	77.606	64.191	23.241	1.00	39.69	A	N
ATOM	1843	NH2	ARG	253	77.633	62.699	21.497	1.00	40.12	A	N
ATOM	1844	C	ARG	253	70.140	64.156	23.449	1.00	17.33	A	C
ATOM	1845	O	ARG	253	69.690	63.802	22.362	1.00	18.44	A	O
ATOM	1846	N	VAL	254	69.432	64.836	24.344	1.00	16.85	A	N
ATOM	1847	CA	VAL	254	68.033	65.196	24.125	1.00	15.67	A	C
ATOM	1848	CB	VAL	254	67.079	64.405	25.070	1.00	16.67	A	C
ATOM	1849	CG1	VAL	254	65.640	64.775	24.766	1.00	16.79	A	C
ATOM	1850	CG2	VAL	254	67.308	62.899	24.951	1.00	17.24	A	C
ATOM	1851	C	VAL	254	67.737	66.660	24.405	1.00	14.62	A	C
ATOM	1852	O	VAL	254	68.122	67.186	25.450	1.00	15.12	A	O
ATOM	1853	N	PRO	255	67.048	67.340	23.475	1.00	13.71	A	N
ATOM	1854	CD	PRO	255	66.677	66.945	22.105	1.00	10.62	A	C
ATOM	1855	CA	PRO	255	66.725	68.749	23.730	1.00	13.00	A	C
ATOM	1856	CB	PRO	255	66.064	69.193	22.431	1.00	13.28	A	C
ATOM	1857	CG	PRO	255	66.674	68.265	21.397	1.00	13.45	A	C
ATOM	1858	C	PRO	255	65.735	68.674	24.899	1.00	13.86	A	C
ATOM	1859	O	PRO	255	64.663	68.086	24.772	1.00	13.58	A	O
ATOM	1860	N	TYR	256	66.108	69.255	26.032	1.00	13.63	A	N
ATOM	1861	CA	TYR	256	65.304	69.194	27.242	1.00	11.65	A	C

(Continued)

FIG. 4-39

ATOM	1862	CB	TYR	256	65.801	68.006	28.077	1.00	10.57	A	C
ATOM	1863	CG	TYR	256	65.044	67.706	29.351	1.00	10.49	A	C
ATOM	1864	CD1	TYR	256	64.949	68.646	30.378	1.00	9.61	A	C
ATOM	1865	CE1	TYR	256	64.296	68.351	31.571	1.00	7.54	A	C
ATOM	1866	CD2	TYR	256	64.460	66.460	29.549	1.00	9.65	A	C
ATOM	1867	CE2	TYR	256	63.799	66.156	30.735	1.00	11.05	A	C
ATOM	1868	CZ	TYR	256	63.722	67.105	31.742	1.00	10.10	A	C
ATOM	1869	OH	TYR	256	63.060	66.801	32.909	1.00	10.49	A	O
ATOM	1870	C	TYR	256	65.488	70.492	28.012	1.00	12.70	A	C
ATOM	1871	O	TYR	256	66.559	70.750	28.553	1.00	15.49	A	O
ATOM	1872	N	PRO	257	64.444	71.325	28.080	1.00	12.39	A	N
ATOM	1873	CD	PRO	257	63.174	71.254	27.334	1.00	13.82	A	C
ATOM	1874	CA	PRO	257	64.548	72.593	28.800	1.00	11.47	A	C
ATOM	1875	CB	PRO	257	63.501	73.450	28.106	1.00	12.01	A	C
ATOM	1876	CG	PRO	257	62.405	72.464	27.866	1.00	12.87	A	C
ATOM	1877	C	PRO	257	64.296	72.489	30.298	1.00	12.85	A	C
ATOM	1878	O	PRO	257	63.174	72.210	30.723	1.00	15.59	A	O
ATOM	1879	N	LYS	258	65.327	72.718	31.105	1.00	11.64	A	N
ATOM	1880	CA	LYS	258	65.155	72.671	32.546	1.00	11.10	A	C
ATOM	1881	CB	LYS	258	66.501	72.439	33.227	1.00	12.96	A	C
ATOM	1882	CG	LYS	258	67.034	71.012	33.031	1.00	14.20	A	C
ATOM	1883	CD	LYS	258	68.519	70.906	33.331	1.00	13.34	A	C
ATOM	1884	CE	LYS	258	69.042	69.480	33.136	1.00	13.95	A	C
ATOM	1885	NZ	LYS	258	68.671	68.536	34.223	1.00	10.80	A	N
ATOM	1886	C	LYS	258	64.517	73.984	33.011	1.00	12.44	A	C
ATOM	1887	O	LYS	258	64.368	74.921	32.224	1.00	11.13	A	O
ATOM	1888	N	ALA	259	64.124	74.043	34.280	1.00	13.33	A	N
ATOM	1889	CA	ALA	259	63.484	75.236	34.844	1.00	14.81	A	C
ATOM	1890	CB	ALA	259	63.368	75.097	36.355	1.00	16.40	A	C
ATOM	1891	C	ALA	259	64.167	76.555	34.508	1.00	15.14	A	C
ATOM	1892	O	ALA	259	65.317	76.787	34.881	1.00	17.32	A	O
ATOM	1893	N	GLY	260	63.448	77.419	33.802	1.00	16.82	A	N
ATOM	1894	CA	GLY	260	63.984	78.720	33.444	1.00	15.59	A	C
ATOM	1895	C	GLY	260	64.870	78.749	32.217	1.00	15.78	A	C
ATOM	1896	O	GLY	260	65.379	79.812	31.852	1.00	17.65	A	O
ATOM	1897	N	ALA	261	65.072	77.600	31.577	1.00	13.77	A	N
ATOM	1898	CA	ALA	261	65.906	77.554	30.379	1.00	11.19	A	C
ATOM	1899	CB	ALA	261	66.524	76.182	30.224	1.00	10.21	A	C
ATOM	1900	C	ALA	261	65.093	77.911	29.137	1.00	10.04	A	C
ATOM	1901	O	ALA	261	63.896	78.160	29.212	1.00	8.71	A	O
ATOM	1902	N	VAL	262	65.747	77.947	27.987	1.00	11.73	A	N
ATOM	1903	CA	VAL	262	65.050	78.284	26.761	1.00	12.13	A	C
ATOM	1904	CB	VAL	262	66.035	78.529	25.594	1.00	11.50	A	C
ATOM	1905	CG1	VAL	262	65.257	78.796	24.299	1.00	8.31	A	C
ATOM	1906	CG2	VAL	262	66.939	79.732	25.920	1.00	5.79	A	C
ATOM	1907	C	VAL	262	64.092	77.167	26.389	1.00	13.92	A	C
ATOM	1908	O	VAL	262	64.471	76.001	26.341	1.00	16.73	A	O
ATOM	1909	N	ASN	263	62.844	77.536	26.139	1.00	13.49	A	N
ATOM	1910	CA	ASN	263	61.816	76.585	25.773	1.00	13.67	A	C

(Continued)

FIG. 4-40

ATOM	1911	CB	ASN	263	60.470	77.038	26.336	1.00	14.53	A	C
ATOM	1912	CG	ASN	263	60.222	76.545	27.746	1.00	17.27	A	C
ATOM	1913	OD1	ASN	263	59.342	77.058	28.444	1.00	18.62	A	O
ATOM	1914	ND2	ASN	263	60.977	75.534	28.169	1.00	16.78	A	N
ATOM	1915	C	ASN	263	61.715	76.500	24.265	1.00	14.45	A	C
ATOM	1916	O	ASN	263	62.170	77.395	23.561	1.00	16.33	A	O
ATOM	1917	N	PRO	264	61.119	75.418	23.743	1.00	14.86	A	N
ATOM	1918	CD	PRO	264	60.513	74.254	24.412	1.00	15.86	A	C
ATOM	1919	CA	PRO	264	60.986	75.301	22.294	1.00	15.41	A	C
ATOM	1920	CB	PRO	264	60.591	73.844	22.106	1.00	14.97	A	C
ATOM	1921	CG	PRO	264	59.721	73.607	23.287	1.00	14.81	A	C
ATOM	1922	C	PRO	264	59.867	76.238	21.882	1.00	15.66	A	C
ATOM	1923	O	PRO	264	58.954	76.496	22.663	1.00	17.42	A	O
ATOM	1924	N	THR	265	59.942	76.767	20.673	1.00	15.76	A	N
ATOM	1925	CA	THR	265	58.895	77.648	20.199	1.00	14.67	A	C
ATOM	1926	CB	THR	265	59.458	78.779	19.341	1.00	15.37	A	C
ATOM	1927	OG1	THR	265	60.162	78.228	18.223	1.00	15.98	A	O
ATOM	1928	CG2	THR	265	60.402	79.633	20.159	1.00	12.01	A	C
ATOM	1929	C	THR	265	58.024	76.749	19.360	1.00	15.62	A	C
ATOM	1930	O	THR	265	58.465	75.683	18.932	1.00	18.75	A	O
ATOM	1931	N	VAL	266	56.794	77.170	19.113	1.00	15.56	A	N
ATOM	1932	CA	VAL	266	55.872	76.352	18.347	1.00	12.79	A	C
ATOM	1933	CB	VAL	266	54.856	75.692	19.274	1.00	12.90	A	C
ATOM	1934	CG1	VAL	266	54.193	76.766	20.130	1.00	12.06	A	C
ATOM	1935	CG2	VAL	266	53.821	74.920	18.466	1.00	10.69	A	C
ATOM	1936	C	VAL	266	55.115	77.180	17.350	1.00	12.88	A	C
ATOM	1937	O	VAL	266	54.995	78.388	17.511	1.00	12.12	A	O
ATOM	1938	N	LYS	267	54.601	76.501	16.327	1.00	13.52	A	N
ATOM	1939	CA	LYS	267	53.817	77.107	15.262	1.00	13.08	A	C
ATOM	1940	CB	LYS	267	54.692	77.389	14.050	1.00	13.64	A	C
ATOM	1941	CG	LYS	267	55.642	78.570	14.165	1.00	13.17	A	C
ATOM	1942	CD	LYS	267	56.348	78.713	12.833	1.00	11.33	A	C
ATOM	1943	CE	LYS	267	57.313	79.864	12.788	1.00	11.66	A	C
ATOM	1944	NZ	LYS	267	58.007	79.844	11.459	1.00	12.98	A	N
ATOM	1945	C	LYS	267	52.713	76.136	14.851	1.00	14.81	A	C
ATOM	1946	O	LYS	267	52.885	74.916	14.930	1.00	14.91	A	O
ATOM	1947	N	PHE	268	51.588	76.674	14.389	1.00	15.02	A	N
ATOM	1948	CA	PHE	268	50.471	75.836	13.975	1.00	14.84	A	C
ATOM	1949	CB	PHE	268	49.249	76.138	14.842	1.00	13.98	A	C
ATOM	1950	CG	PHE	268	48.237	75.041	14.846	1.00	15.65	A	C
ATOM	1951	CD1	PHE	268	48.467	73.872	15.562	1.00	15.51	A	C
ATOM	1952	CD2	PHE	268	47.056	75.159	14.115	1.00	18.05	A	C
ATOM	1953	CE1	PHE	268	47.537	72.836	15.551	1.00	15.17	A	C
ATOM	1954	CE2	PHE	268	46.120	74.120	14.101	1.00	17.28	A	C
ATOM	1955	CZ	PHE	268	46.366	72.960	14.821	1.00	14.54	A	C
ATOM	1956	C	PHE	268	50.117	76.029	12.497	1.00	14.63	A	C
ATOM	1957	O	PHE	268	50.143	77.144	11.981	1.00	16.53	A	O
ATOM	1958	N	PHE	269	49.767	74.938	11.829	1.00	13.37	A	N
ATOM	1959	CA	PHE	269	49.417	74.976	10.413	1.00	12.73	A	C

(Continued)

FIG. 4-41

ATOM	1960	CB	PHE	269	50.597	74.510	9.547	1.00	12.68	A	C
ATOM	1961	CG	PHE	269	51.875	75.229	9.809	1.00	10.71	A	C
ATOM	1962	CD1	PHE	269	52.190	76.387	9.112	1.00	11.11	A	C
ATOM	1963	CD2	PHE	269	52.758	74.759	10.770	1.00	11.04	A	C
ATOM	1964	CE1	PHE	269	53.374	77.070	9.371	1.00	12.54	A	C
ATOM	1965	CE2	PHE	269	53.940	75.430	11.039	1.00	13.96	A	C
ATOM	1966	CZ	PHE	269	54.252	76.591	10.339	1.00	13.89	A	C
ATOM	1967	C	PHE	269	48.270	74.032	10.117	1.00	12.37	A	C
ATOM	1968	O	PHE	269	47.937	73.157	10.910	1.00	14.50	A	O
ATOM	1969	N	VAL	270	47.699	74.193	8.938	1.00	13.63	A	N
ATOM	1970	CA	VAL	270	46.626	73.334	8.485	1.00	15.44	A	C
ATOM	1971	CB	VAL	270	45.228	73.903	8.815	1.00	14.59	A	C
ATOM	1972	CG1	VAL	270	44.153	72.900	8.383	1.00	12.94	A	C
ATOM	1973	CG2	VAL	270	45.110	74.183	10.304	1.00	15.69	A	C
ATOM	1974	C	VAL	270	46.730	73.198	6.975	1.00	16.91	A	C
ATOM	1975	O	VAL	270	46.875	74.188	6.258	1.00	17.51	A	O
ATOM	1976	N	VAL	271	46.681	71.966	6.494	1.00	17.37	A	N
ATOM	1977	CA	VAL	271	46.726	71.746	5.067	1.00	16.54	A	C
ATOM	1978	CB	VAL	271	47.928	70.879	4.646	1.00	19.07	A	C
ATOM	1979	CG1	VAL	271	47.911	69.548	5.400	1.00	20.07	A	C
ATOM	1980	CG2	VAL	271	47.878	70.635	3.131	1.00	18.62	A	C
ATOM	1981	C	VAL	271	45.456	71.041	4.641	1.00	15.09	A	C
ATOM	1982	O	VAL	271	44.912	70.226	5.383	1.00	13.46	A	O
ATOM	1983	N	ASN	272	44.988	71.394	3.449	1.00	15.17	A	N
ATOM	1984	CA	ASN	272	43.812	70.802	2.832	1.00	14.94	A	C
ATOM	1985	CB	ASN	272	43.231	71.767	1.797	1.00	13.83	A	C
ATOM	1986	CG	ASN	272	42.010	71.205	1.093	1.00	14.46	A	C
ATOM	1987	OD1	ASN	272	41.822	69.989	1.007	1.00	16.67	A	O
ATOM	1988	ND2	ASN	272	41.175	72.090	0.581	1.00	15.74	A	N
ATOM	1989	C	ASN	272	44.310	69.542	2.110	1.00	15.70	A	C
ATOM	1990	O	ASN	272	44.755	69.617	0.967	1.00	16.88	A	O
ATOM	1991	N	THR	273	44.241	68.390	2.758	1.00	15.93	A	N
ATOM	1992	CA	THR	273	44.717	67.169	2.124	1.00	18.97	A	C
ATOM	1993	CB	THR	273	44.570	65.936	3.052	1.00	19.44	A	C
ATOM	1994	OG1	THR	273	43.201	65.794	3.471	1.00	19.69	A	O
ATOM	1995	CG2	THR	273	45.481	66.083	4.266	1.00	19.20	A	C
ATOM	1996	C	THR	273	44.009	66.870	0.813	1.00	19.92	A	C
ATOM	1997	O	THR	273	44.550	66.154	-0.028	1.00	21.20	A	O
ATOM	1998	N	ASP	274	42.811	67.424	0.634	1.00	20.50	A	N
ATOM	1999	CA	ASP	274	42.032	67.193	-0.584	1.00	20.30	A	C
ATOM	2000	CB	ASP	274	40.578	67.629	-0.390	1.00	21.02	A	C
ATOM	2001	CG	ASP	274	39.705	66.529	0.178	1.00	23.48	A	C
ATOM	2002	OD1	ASP	274	38.543	66.823	0.527	1.00	26.38	A	O
ATOM	2003	OD2	ASP	274	40.168	65.375	0.275	1.00	23.88	A	O
ATOM	2004	C	ASP	274	42.573	67.870	-1.832	1.00	19.89	A	C
ATOM	2005	O	ASP	274	42.131	67.556	-2.932	1.00	22.08	A	O
ATOM	2006	N	SER	275	43.508	68.802	-1.676	1.00	18.13	A	N
ATOM	2007	CA	SER	275	44.073	69.490	-2.834	1.00	18.83	A	C
ATOM	2008	CB	SER	275	44.284	70.969	-2.518	1.00	19.37	A	C

(Continued)

FIG. 4-42

ATOM	2009	OG	SER	275	45.197	71.121	-1.444	1.00	24.82	A O
ATOM	2010	C	SER	275	45.397	68.885	-3.314	1.00	19.53	A C
ATOM	2011	O	SER	275	45.883	69.226	-4.394	1.00	19.59	A O
ATOM	2012	N	LEU	276	45.971	67.986	-2.516	1.00	19.83	A N
ATOM	2013	CA	LEU	276	47.241	67.348	-2.846	1.00	20.72	A C
ATOM	2014	CB	LEU	276	47.545	66.226	-1.849	1.00	19.96	A C
ATOM	2015	CG	LEU	276	47.725	66.641	-0.392	1.00	20.47	A C
ATOM	2016	CD1	LEU	276	47.991	65.410	0.456	1.00	21.68	A C
ATOM	2017	CD2	LEU	276	48.875	67.622	-0.277	1.00	18.56	A C
ATOM	2018	C	LEU	276	47.360	66.790	-4.263	1.00	22.34	A C
ATOM	2019	O	LEU	276	48.290	67.137	-4.994	1.00	24.63	A O
ATOM	2020	N	SER	277	46.434	65.925	-4.656	1.00	22.80	A N
ATOM	2021	CA	SER	277	46.501	65.325	-5.983	1.00	23.82	A C
ATOM	2022	CB	SER	277	45.456	64.219	-6.121	1.00	22.59	A C
ATOM	2023	OG	SER	277	44.148	64.756	-6.044	1.00	23.44	A O
ATOM	2024	C	SER	277	46.305	66.341	-7.097	1.00	24.47	A C
ATOM	2025	O	SER	277	46.699	66.104	-8.231	1.00	26.86	A O
ATOM	2026	N	SER	278	45.698	67.472	-6.768	1.00	25.44	A N
ATOM	2027	CA	SER	278	45.431	68.522	-7.745	1.00	26.20	A C
ATOM	2028	CB	SER	278	44.051	69.121	-7.471	1.00	25.70	A C
ATOM	2029	OG	SER	278	43.831	70.266	-8.266	1.00	30.53	A O
ATOM	2030	C	SER	278	46.495	69.630	-7.739	1.00	25.70	A C
ATOM	2031	O	SER	278	46.603	70.414	-8.683	1.00	23.48	A O
ATOM	2032	N	VAL	279	47.277	69.692	-6.672	1.00	26.01	A N
ATOM	2033	CA	VAL	279	48.327	70.696	-6.565	1.00	28.42	A C
ATOM	2034	CB	VAL	279	48.073	71.634	-5.350	1.00	29.96	A C
ATOM	2035	CG1	VAL	279	49.372	72.211	-4.834	1.00	32.19	A C
ATOM	2036	CG2	VAL	279	47.148	72.768	-5.776	1.00	29.00	A C
ATOM	2037	C	VAL	279	49.704	70.043	-6.470	1.00	28.21	A C
ATOM	2038	O	VAL	279	49.834	68.872	-6.088	1.00	29.00	A O
ATOM	2039	N	THR	280	50.728	70.801	-6.848	1.00	26.67	A N
ATOM	2040	CA	THR	280	52.092	70.306	-6.832	1.00	26.53	A C
ATOM	2041	CB	THR	280	53.023	71.217	-7.645	1.00	27.22	A C
ATOM	2042	OG1	THR	280	52.533	71.331	-8.986	1.00	29.98	A O
ATOM	2043	CG2	THR	280	54.422	70.645	-7.674	1.00	26.85	A C
ATOM	2044	C	THR	280	52.618	70.254	-5.418	1.00	26.01	A C
ATOM	2045	O	THR	280	53.184	69.255	-4.986	1.00	27.33	A O
ATOM	2046	N	ASN	281	52.402	71.341	-4.696	1.00	25.17	A N
ATOM	2047	CA	ASN	281	52.876	71.474	-3.334	1.00	23.78	A C
ATOM	2048	CB	ASN	281	54.190	72.250	-3.388	1.00	22.28	A C
ATOM	2049	CG	ASN	281	54.925	72.287	-2.071	1.00	22.87	A C
ATOM	2050	OD1	ASN	281	54.603	71.576	-1.116	1.00	20.83	A O
ATOM	2051	ND2	ASN	281	55.948	73.136	-2.056	1.00	22.18	A N
ATOM	2052	C	ASN	281	51.818	72.211	-2.506	1.00	23.12	A C
ATOM	2053	O	ASN	281	51.876	73.431	-2.362	1.00	22.47	A O
ATOM	2054	N	ALA	282	50.849	71.460	-1.982	1.00	23.33	A N
ATOM	2055	CA	ALA	282	49.763	72.018	-1.166	1.00	23.40	A C
ATOM	2056	CB	ALA	282	48.952	70.895	-0.547	1.00	23.19	A C
ATOM	2057	C	ALA	282	50.320	72.912	-0.071	1.00	24.45	A C

(Continued)

FIG. 4-43

ATOM	2058	O	ALA	282	51.180	72.487	0.694	1.00	25.49	A	O
ATOM	2059	N	THR	283	49.817	74.140	0.024	1.00	24.70	A	N
ATOM	2060	CA	THR	283	50.326	75.074	1.021	1.00	25.33	A	C
ATOM	2061	CB	THR	283	50.209	76.540	0.539	1.00	27.36	A	C
ATOM	2062	OG1	THR	283	48.834	76.874	0.353	1.00	29.84	A	O
ATOM	2063	CG2	THR	283	50.947	76.730	-0.785	1.00	30.06	A	C
ATOM	2064	C	THR	283	49.710	74.983	2.406	1.00	24.49	A	C
ATOM	2065	O	THR	283	48.487	74.960	2.578	1.00	24.13	A	O
ATOM	2066	N	SER	284	50.593	74.941	3.396	1.00	23.17	A	N
ATOM	2067	CA	SER	284	50.200	74.872	4.791	1.00	19.88	A	C
ATOM	2068	CB	SER	284	51.317	74.249	5.624	1.00	15.88	A	C
ATOM	2069	OG	SER	284	51.413	72.868	5.350	1.00	14.23	A	O
ATOM	2070	C	SER	284	49.906	76.275	5.288	1.00	19.24	A	C
ATOM	2071	O	SER	284	50.774	77.148	5.253	1.00	18.08	A	O
ATOM	2072	N	ILE	285	48.674	76.478	5.745	1.00	17.36	A	N
ATOM	2073	CA	ILE	285	48.249	77.771	6.242	1.00	16.16	A	C
ATOM	2074	CB	ILE	285	46.754	78.003	5.977	1.00	16.93	A	C
ATOM	2075	CG2	ILE	285	46.384	79.446	6.324	1.00	14.55	A	C
ATOM	2076	CG1	ILE	285	46.434	77.691	4.513	1.00	14.89	A	C
ATOM	2077	CD1	ILE	285	47.230	78.526	3.528	1.00	15.03	A	C
ATOM	2078	C	ILE	285	48.496	77.848	7.733	1.00	16.46	A	C
ATOM	2079	O	ILE	285	48.116	76.963	8.489	1.00	18.69	A	O
ATOM	2080	N	GLN	286	49.130	78.923	8.159	1.00	16.66	A	N
ATOM	2081	CA	GLN	286	49.428	79.088	9.563	1.00	16.43	A	C
ATOM	2082	CB	GLN	286	50.778	79.776	9.717	1.00	16.31	A	C
ATOM	2083	CG	GLN	286	51.184	80.070	11.135	1.00	17.85	A	C
ATOM	2084	CD	GLN	286	52.552	80.713	11.196	1.00	21.44	A	C
ATOM	2085	OE1	GLN	286	53.072	81.005	12.277	1.00	24.09	A	O
ATOM	2086	NE2	GLN	286	53.149	80.939	10.028	1.00	19.13	A	N
ATOM	2087	C	GLN	286	48.360	79.885	10.289	1.00	16.82	A	C
ATOM	2088	O	GLN	286	47.794	80.844	9.754	1.00	17.23	A	O
ATOM	2089	N	ILE	287	48.070	79.453	11.507	1.00	15.99	A	N
ATOM	2090	CA	ILE	287	47.116	80.137	12.355	1.00	15.11	A	C
ATOM	2091	CB	ILE	287	46.036	79.182	12.894	1.00	14.14	A	C
ATOM	2092	CG2	ILE	287	45.147	79.916	13.875	1.00	14.36	A	C
ATOM	2093	CG1	ILE	287	45.206	78.621	11.742	1.00	13.29	A	C
ATOM	2094	CD1	ILE	287	44.111	77.675	12.202	1.00	14.31	A	C
ATOM	2095	C	ILE	287	47.991	80.625	13.506	1.00	15.35	A	C
ATOM	2096	O	ILE	287	48.349	79.860	14.401	1.00	14.39	A	O
ATOM	2097	N	THR	288	48.367	81.894	13.452	1.00	15.01	A	N
ATOM	2098	CA	THR	288	49.215	82.465	14.482	1.00	16.71	A	C
ATOM	2099	CB	THR	288	49.688	83.874	14.093	1.00	17.36	A	C
ATOM	2100	OG1	THR	288	48.548	84.679	13.779	1.00	21.17	A	O
ATOM	2101	CG2	THR	288	50.621	83.813	12.881	1.00	17.64	A	C
ATOM	2102	C	THR	288	48.510	82.553	15.818	1.00	16.02	A	C
ATOM	2103	O	THR	288	47.287	82.668	15.888	1.00	16.28	A	O
ATOM	2104	N	ALA	289	49.301	82.488	16.881	1.00	16.31	A	N
ATOM	2105	CA	ALA	289	48.787	82.582	18.232	1.00	16.67	A	C
ATOM	2106	CB	ALA	289	49.887	82.262	19.207	1.00	18.89	A	C

(Continued)

FIG. 4-44

ATOM	2107	C	ALA	289	48.280	84.001	18.467	1.00	18.05	A	C
ATOM	2108	O	ALA	289	48.629	84.927	17.733	1.00	19.12	A	O
ATOM	2109	N	PRO	290	47.436	84.193	19.487	1.00	18.60	A	N
ATOM	2110	CD	PRO	290	46.851	83.189	20.388	1.00	18.37	A	C
ATOM	2111	CA	PRO	290	46.906	85.526	19.783	1.00	19.04	A	C
ATOM	2112	CB	PRO	290	45.791	85.234	20.777	1.00	17.58	A	C
ATOM	2113	CG	PRO	290	46.306	84.055	21.499	1.00	19.78	A	C
ATOM	2114	C	PRO	290	47.976	86.447	20.369	1.00	20.45	A	C
ATOM	2115	O	PRO	290	48.866	85.995	21.092	1.00	22.14	A	O
ATOM	2116	N	ALA	291	47.878	87.735	20.054	1.00	19.85	A	N
ATOM	2117	CA	ALA	291	48.829	88.728	20.543	1.00	19.27	A	C
ATOM	2118	CB	ALA	291	48.330	90.132	20.213	1.00	17.30	A	C
ATOM	2119	C	ALA	291	49.101	88.610	22.041	1.00	19.66	A	C
ATOM	2120	O	ALA	291	50.238	88.791	22.489	1.00	21.52	A	O
ATOM	2121	N	SER	292	48.074	88.305	22.825	1.00	19.16	A	N
ATOM	2122	CA	SER	292	48.275	88.185	24.264	1.00	19.97	A	C
ATOM	2123	CB	SER	292	46.936	87.983	24.971	1.00	19.90	A	C
ATOM	2124	OG	SER	292	46.259	86.839	24.487	1.00	24.94	A	O
ATOM	2125	C	SER	292	49.244	87.055	24.618	1.00	20.24	A	C
ATOM	2126	O	SER	292	49.686	86.948	25.760	1.00	21.86	A	O
ATOM	2127	N	MET	293	49.566	86.214	23.635	1.00	20.06	A	N
ATOM	2128	CA	MET	293	50.504	85.104	23.818	1.00	18.78	A	C
ATOM	2129	CB	MET	293	49.987	83.830	23.149	1.00	17.35	A	C
ATOM	2130	CG	MET	293	48.795	83.168	23.797	1.00	15.90	A	C
ATOM	2131	SD	MET	293	49.139	82.503	25.424	1.00	15.89	A	S
ATOM	2132	CE	MET	293	47.655	82.993	26.296	1.00	16.41	A	C
ATOM	2133	C	MET	293	51.831	85.487	23.161	1.00	20.24	A	C
ATOM	2134	O	MET	293	52.912	85.221	23.693	1.00	21.12	A	O
ATOM	2135	N	LEU	294	51.738	86.116	21.995	1.00	20.44	A	N
ATOM	2136	CA	LEU	294	52.918	86.532	21.255	1.00	21.31	A	C
ATOM	2137	CB	LEU	294	52.498	87.104	19.900	1.00	21.19	A	C
ATOM	2138	CG	LEU	294	51.850	86.092	18.944	1.00	23.63	A	C
ATOM	2139	CD1	LEU	294	51.257	86.820	17.747	1.00	22.60	A	C
ATOM	2140	CD2	LEU	294	52.889	85.064	18.493	1.00	20.94	A	C
ATOM	2141	C	LEU	294	53.818	87.533	21.981	1.00	22.05	A	C
ATOM	2142	O	LEU	294	54.953	87.742	21.564	1.00	23.39	A	O
ATOM	2143	N	ILE	295	53.329	88.156	23.053	1.00	21.86	A	N
ATOM	2144	CA	ILE	295	54.149	89.122	23.792	1.00	22.24	A	C
ATOM	2145	CB	ILE	295	53.323	89.938	24.835	1.00	24.92	A	C
ATOM	2146	CG2	ILE	295	52.084	90.536	24.196	1.00	25.08	A	C
ATOM	2147	CG1	ILE	295	52.906	89.034	25.998	1.00	25.57	A	C
ATOM	2148	CD1	ILE	295	52.157	89.761	27.085	1.00	26.45	A	C
ATOM	2149	C	ILE	295	55.271	88.426	24.565	1.00	21.97	A	C
ATOM	2150	O	ILE	295	56.218	89.064	25.006	1.00	23.91	A	O
ATOM	2151	N	GLY	296	55.154	87.119	24.749	1.00	20.65	A	N
ATOM	2152	CA	GLY	296	56.174	86.401	25.482	1.00	18.90	A	C
ATOM	2153	C	GLY	296	56.165	84.922	25.167	1.00	18.45	A	C
ATOM	2154	O	GLY	296	55.527	84.503	24.202	1.00	18.61	A	O
ATOM	2155	N	ASP	297	56.878	84.132	25.967	1.00	16.58	A	N

(Continued)

FIG. 4-45

ATOM	2156	CA	ASP	297	56.918	82.694	25.751	1.00	16.95	A	C
ATOM	2157	CB	ASP	297	57.960	82.032	26.650	1.00	18.00	A	C
ATOM	2158	CG	ASP	297	59.366	82.378	26.253	1.00	18.62	A	C
ATOM	2159	OD1	ASP	297	59.553	82.882	25.128	1.00	18.23	A	O
ATOM	2160	OD2	ASP	297	60.284	82.134	27.063	1.00	21.29	A	O
ATOM	2161	C	ASP	297	55.553	82.096	26.041	1.00	16.02	A	C
ATOM	2162	O	ASP	297	54.847	82.537	26.942	1.00	16.36	A	O
ATOM	2163	N	HIS	298	55.190	81.079	25.279	1.00	14.79	A	N
ATOM	2164	CA	HIS	298	53.901	80.449	25.460	1.00	16.82	A	C
ATOM	2165	CB	HIS	298	52.846	81.207	24.661	1.00	14.81	A	C
ATOM	2166	CG	HIS	298	53.245	81.448	23.241	1.00	15.31	A	C
ATOM	2167	CD2	HIS	298	52.921	80.793	22.099	1.00	14.85	A	C
ATOM	2168	ND1	HIS	298	54.127	82.442	22.876	1.00	13.01	A	N
ATOM	2169	CE1	HIS	298	54.327	82.392	21.572	1.00	14.39	A	C
ATOM	2170	NE2	HIS	298	53.608	81.400	21.076	1.00	14.38	A	N
ATOM	2171	C	HIS	298	53.956	79.008	24.979	1.00	17.54	A	C
ATOM	2172	O	HIS	298	55.008	78.519	24.560	1.00	15.53	A	O
ATOM	2173	N	TYR	299	52.802	78.348	25.031	1.00	17.25	A	N
ATOM	2174	CA	TYR	299	52.675	76.963	24.609	1.00	16.58	A	C
ATOM	2175	CB	TYR	299	52.666	76.029	25.816	1.00	15.77	A	C
ATOM	2176	CG	TYR	299	53.811	76.176	26.790	1.00	17.03	A	C
ATOM	2177	CD1	TYR	299	55.095	75.762	26.456	1.00	14.29	A	C
ATOM	2178	CE1	TYR	299	56.119	75.807	27.380	1.00	15.79	A	C
ATOM	2179	CD2	TYR	299	53.586	76.653	28.081	1.00	15.17	A	C
ATOM	2180	CE2	TYR	299	54.600	76.700	29.009	1.00	15.67	A	C
ATOM	2181	CZ	TYR	299	55.865	76.270	28.656	1.00	15.90	A	C
ATOM	2182	OH	TYR	299	56.863	76.261	29.595	1.00	16.73	A	O
ATOM	2183	C	TYR	299	51.351	76.741	23.893	1.00	17.76	A	C
ATOM	2184	O	TYR	299	50.349	77.411	24.178	1.00	16.87	A	O
ATOM	2185	N	LEU	300	51.355	75.799	22.959	1.00	16.20	A	N
ATOM	2186	CA	LEU	300	50.130	75.413	22.292	1.00	16.36	A	C
ATOM	2187	CB	LEU	300	50.413	74.923	20.878	1.00	16.40	A	C
ATOM	2188	CG	LEU	300	49.232	74.296	20.139	1.00	14.78	A	C
ATOM	2189	CD1	LEU	300	48.131	75.322	19.972	1.00	16.55	A	C
ATOM	2190	CD2	LEU	300	49.692	73.789	18.785	1.00	15.08	A	C
ATOM	2191	C	LEU	300	49.777	74.243	23.205	1.00	17.58	A	C
ATOM	2192	O	LEU	300	50.568	73.312	23.335	1.00	17.21	A	O
ATOM	2193	N	CYS	301	48.629	74.290	23.873	1.00	19.46	A	N
ATOM	2194	CA	CYS	301	48.288	73.202	24.782	1.00	22.20	A	C
ATOM	2195	CB	CYS	301	48.208	73.722	26.220	1.00	22.63	A	C
ATOM	2196	SG	CYS	301	46.943	74.962	26.503	1.00	26.56	A	S
ATOM	2197	C	CYS	301	47.032	72.399	24.468	1.00	23.29	A	C
ATOM	2198	O	CYS	301	46.690	71.481	25.210	1.00	25.66	A	O
ATOM	2199	N	ASP	302	46.341	72.731	23.386	1.00	23.55	A	N
ATOM	2200	CA	ASP	302	45.148	71.976	23.015	1.00	24.19	A	C
ATOM	2201	CB	ASP	302	43.999	72.223	23.991	1.00	26.49	A	C
ATOM	2202	CG	ASP	302	42.789	71.355	23.680	1.00	28.68	A	C
ATOM	2203	OD1	ASP	302	42.795	70.170	24.066	1.00	30.65	A	O
ATOM	2204	OD2	ASP	302	41.841	71.844	23.029	1.00	30.37	A	O

(Continued)

FIG. 4-46

ATOM	2205	C	ASP	302	44.658	72.292	21.610	1.00	23.22	A	C
ATOM	2206	O	ASP	302	44.523	73.455	21.226	1.00	24.26	A	O
ATOM	2207	N	VAL	303	44.385	71.237	20.857	1.00	21.65	A	N
ATOM	2208	CA	VAL	303	43.902	71.349	19.493	1.00	20.79	A	C
ATOM	2209	CB	VAL	303	44.926	70.803	18.480	1.00	21.88	A	C
ATOM	2210	CG1	VAL	303	44.420	71.028	17.051	1.00	20.34	A	C
ATOM	2211	CG2	VAL	303	46.273	71.465	18.702	1.00	20.12	A	C
ATOM	2212	C	VAL	303	42.657	70.494	19.417	1.00	20.38	A	C
ATOM	2213	O	VAL	303	42.687	69.306	19.744	1.00	19.45	A	O
ATOM	2214	N	THR	304	41.562	71.102	18.982	1.00	20.04	A	N
ATOM	2215	CA	THR	304	40.302	70.394	18.882	1.00	19.30	A	C
ATOM	2216	CB	THR	304	39.494	70.546	20.191	1.00	19.73	A	C
ATOM	2217	OG1	THR	304	40.256	70.024	21.287	1.00	20.19	A	O
ATOM	2218	CG2	THR	304	38.168	69.812	20.090	1.00	17.51	A	C
ATOM	2219	C	THR	304	39.467	70.930	17.733	1.00	18.56	A	C
ATOM	2220	O	THR	304	39.185	72.127	17.674	1.00	19.32	A	O
ATOM	2221	N	TRP	305	39.082	70.042	16.819	1.00	18.08	A	N
ATOM	2222	CA	TRP	305	38.243	70.422	15.681	1.00	16.88	A	C
ATOM	2223	CB	TRP	305	38.332	69.394	14.546	1.00	13.92	A	C
ATOM	2224	CG	TRP	305	39.581	69.464	13.745	1.00	13.82	A	C
ATOM	2225	CD2	TRP	305	39.815	70.296	12.606	1.00	13.04	A	C
ATOM	2226	CE2	TRP	305	41.143	70.068	12.189	1.00	13.12	A	C
ATOM	2227	CE3	TRP	305	39.031	71.216	11.899	1.00	13.55	A	C
ATOM	2228	CD1	TRP	305	40.745	68.781	13.967	1.00	13.51	A	C
ATOM	2229	NE1	TRP	305	41.688	69.138	13.036	1.00	11.41	A	N
ATOM	2230	CZ2	TRP	305	41.704	70.729	11.094	1.00	12.03	A	C
ATOM	2231	CZ3	TRP	305	39.591	71.873	10.809	1.00	14.16	A	C
ATOM	2232	CH2	TRP	305	40.914	71.625	10.419	1.00	13.92	A	C
ATOM	2233	C	TRP	305	36.803	70.477	16.155	1.00	16.35	A	C
ATOM	2234	O	TRP	305	36.368	69.613	16.917	1.00	16.55	A	O
ATOM	2235	N	ALA	306	36.064	71.484	15.704	1.00	16.10	A	N
ATOM	2236	CA	ALA	306	34.661	71.620	16.079	1.00	17.20	A	C
ATOM	2237	CB	ALA	306	34.336	73.074	16.384	1.00	18.47	A	C
ATOM	2238	C	ALA	306	33.770	71.110	14.956	1.00	16.79	A	C
ATOM	2239	O	ALA	306	32.829	70.369	15.191	1.00	18.46	A	O
ATOM	2240	N	THR	307	34.076	71.516	13.733	1.00	18.36	A	N
ATOM	2241	CA	THR	307	33.314	71.100	12.564	1.00	18.83	A	C
ATOM	2242	CB	THR	307	32.387	72.222	12.072	1.00	18.43	A	C
ATOM	2243	OG1	THR	307	33.178	73.254	11.473	1.00	20.76	A	O
ATOM	2244	CG2	THR	307	31.593	72.811	13.225	1.00	16.72	A	C
ATOM	2245	C	THR	307	34.299	70.778	11.442	1.00	20.34	A	C
ATOM	2246	O	THR	307	35.494	70.626	11.689	1.00	22.05	A	O
ATOM	2247	N	GLN	308	33.798	70.688	10.213	1.00	20.11	A	N
ATOM	2248	CA	GLN	308	34.640	70.389	9.066	1.00	19.71	A	C
ATOM	2249	CB	GLN	308	33.799	69.942	7.866	1.00	19.44	A	C
ATOM	2250	CG	GLN	308	32.845	68.791	8.118	1.00	21.53	A	C
ATOM	2251	CD	GLN	308	33.524	67.505	8.557	1.00	23.81	A	C
ATOM	2252	OE1	GLN	308	32.854	66.565	9.003	1.00	25.80	A	O
ATOM	2253	NE2	GLN	308	34.848	67.449	8.430	1.00	21.04	A	N

(Continued)

FIG. 4-47

ATOM	2254	C	GLN	308	35.440	71.616	8.653	1.00	19.98	A	C
ATOM	2255	O	GLN	308	36.421	71.501	7.922	1.00	21.84	A	O
ATOM	2256	N	GLU	309	35.022	72.789	9.114	1.00	19.41	A	N
ATOM	2257	CA	GLU	309	35.710	74.019	8.751	1.00	20.93	A	C
ATOM	2258	CB	GLU	309	34.920	74.764	7.685	1.00	21.98	A	C
ATOM	2259	CG	GLU	309	34.709	73.971	6.419	1.00	26.38	A	C
ATOM	2260	CD	GLU	309	33.890	74.731	5.413	1.00	29.11	A	C
ATOM	2261	OE1	GLU	309	33.665	74.192	4.305	1.00	31.98	A	O
ATOM	2262	OE2	GLU	309	33.471	75.869	5.736	1.00	28.78	A	O
ATOM	2263	C	GLU	309	35.924	74.939	9.932	1.00	21.37	A	C
ATOM	2264	O	GLU	309	36.075	76.152	9.764	1.00	21.97	A	O
ATOM	2265	N	ARG	310	35.941	74.360	11.125	1.00	20.65	A	N
ATOM	2266	CA	ARG	310	36.133	75.131	12.340	1.00	20.50	A	C
ATOM	2267	CB	ARG	310	34.779	75.445	12.986	1.00	19.87	A	C
ATOM	2268	CG	ARG	310	34.888	76.186	14.305	1.00	22.38	A	C
ATOM	2269	CD	ARG	310	33.519	76.630	14.786	1.00	21.66	A	C
ATOM	2270	NE	ARG	310	32.952	77.605	13.870	1.00	20.43	A	N
ATOM	2271	CZ	ARG	310	31.660	77.884	13.785	1.00	19.88	A	C
ATOM	2272	NH1	ARG	310	30.794	77.261	14.569	1.00	21.42	A	N
ATOM	2273	NH2	ARG	310	31.235	78.776	12.902	1.00	21.69	A	N
ATOM	2274	C	ARG	310	37.009	74.346	13.304	1.00	19.05	A	C
ATOM	2275	O	ARG	310	36.701	73.214	13.671	1.00	20.19	A	O
ATOM	2276	N	ILE	311	38.108	74.959	13.710	1.00	17.88	A	N
ATOM	2277	CA	ILE	311	39.044	74.320	14.619	1.00	17.41	A	C
ATOM	2278	CB	ILE	311	40.371	73.991	13.859	1.00	17.28	A	C
ATOM	2279	CG2	ILE	311	40.982	75.252	13.305	1.00	14.23	A	C
ATOM	2280	CG1	ILE	311	41.358	73.254	14.765	1.00	17.79	A	C
ATOM	2281	CD1	ILE	311	42.589	72.763	14.011	1.00	15.43	A	C
ATOM	2282	C	ILE	311	39.283	75.258	15.802	1.00	17.03	A	C
ATOM	2283	O	ILE	311	39.267	76.481	15.649	1.00	17.06	A	O
ATOM	2284	N	SER	312	39.461	74.692	16.988	1.00	16.94	A	N
ATOM	2285	CA	SER	312	39.694	75.517	18.163	1.00	18.32	A	C
ATOM	2286	CB	SER	312	38.631	75.244	19.235	1.00	19.09	A	C
ATOM	2287	OG	SER	312	39.008	74.173	20.074	1.00	18.57	A	O
ATOM	2288	C	SER	312	41.084	75.269	18.736	1.00	18.45	A	C
ATOM	2289	O	SER	312	41.552	74.131	18.795	1.00	17.71	A	O
ATOM	2290	N	LEU	313	41.738	76.349	19.148	1.00	19.07	A	N
ATOM	2291	CA	LEU	313	43.080	76.271	19.708	1.00	20.08	A	C
ATOM	2292	CB	LEU	313	44.093	76.931	18.768	1.00	19.12	A	C
ATOM	2293	CG	LEU	313	44.239	76.409	17.341	1.00	20.02	A	C
ATOM	2294	CD1	LEU	313	45.480	77.038	16.712	1.00	19.82	A	C
ATOM	2295	CD2	LEU	313	44.361	74.892	17.351	1.00	20.74	A	C
ATOM	2296	C	LEU	313	43.172	76.957	21.062	1.00	21.08	A	C
ATOM	2297	O	LEU	313	42.608	78.030	21.265	1.00	21.22	A	O
ATOM	2298	N	GLN	314	43.898	76.333	21.981	1.00	22.23	A	N
ATOM	2299	CA	GLN	314	44.096	76.884	23.308	1.00	22.40	A	C
ATOM	2300	CB	GLN	314	43.545	75.935	24.365	1.00	24.62	A	C
ATOM	2301	CG	GLN	314	42.033	75.860	24.406	1.00	27.30	A	C
ATOM	2302	CD	GLN	314	41.536	74.832	25.401	1.00	29.52	A	C

(Continued)

FIG. 4-48

ATOM	2303	OE1	GLN	314	41.827	74.911	26.598	1.00	29.38	A O
ATOM	2304	NE2	GLN	314	40.786	73.854	24.911	1.00	30.52	A N
ATOM	2305	C	GLN	314	45.584	77.099	23.532	1.00	22.00	A C
ATOM	2306	O	GLN	314	46.382	76.176	23.419	1.00	22.34	A O
ATOM	2307	N	TRP	315	45.954	78.333	23.833	1.00	21.50	A N
ATOM	2308	CA	TRP	315	47.343	78.667	24.070	1.00	20.70	A C
ATOM	2309	CB	TRP	315	47.748	79.873	23.226	1.00	18.74	A C
ATOM	2310	CG	TRP	315	47.480	79.711	21.746	1.00	17.87	A C
ATOM	2311	CD2	TRP	315	48.435	79.368	20.733	1.00	14.81	A C
ATOM	2312	CE2	TRP	315	47.764	79.419	19.491	1.00	14.29	A C
ATOM	2313	CE3	TRP	315	49.793	79.029	20.753	1.00	13.32	A C
ATOM	2314	CD1	TRP	315	46.299	79.936	21.095	1.00	15.84	A C
ATOM	2315	NE1	TRP	315	46.463	79.769	19.742	1.00	13.87	A N
ATOM	2316	CZ2	TRP	315	48.407	79.147	18.278	1.00	12.51	A C
ATOM	2317	CZ3	TRP	315	50.433	78.760	19.545	1.00	13.87	A C
ATOM	2318	CH2	TRP	315	49.736	78.822	18.325	1.00	12.57	A C
ATOM	2319	C	TRP	315	47.530	78.976	25.545	1.00	21.60	A C
ATOM	2320	O	TRP	315	46.615	79.463	26.205	1.00	22.41	A O
ATOM	2321	N	LEU	316	48.721	78.689	26.056	1.00	21.81	A N
ATOM	2322	CA	LEU	316	49.033	78.915	27.458	1.00	22.64	A C
ATOM	2323	CB	LEU	316	49.034	77.573	28.192	1.00	22.20	A C
ATOM	2324	CG	LEU	316	49.655	77.484	29.584	1.00	23.04	A C
ATOM	2325	CD1	LEU	316	48.953	78.438	30.530	1.00	24.08	A C
ATOM	2326	CD2	LEU	316	49.557	76.049	30.085	1.00	19.71	A C
ATOM	2327	C	LEU	316	50.383	79.617	27.618	1.00	24.44	A C
ATOM	2328	O	LEU	316	51.392	79.192	27.046	1.00	26.77	A O
ATOM	2329	N	ARG	317	50.388	80.704	28.383	1.00	23.92	A N
ATOM	2330	CA	ARG	317	51.603	81.475	28.630	1.00	22.55	A C
ATOM	2331	CB	ARG	317	51.265	82.787	29.337	1.00	25.72	A C
ATOM	2332	CG	ARG	317	50.490	83.785	28.504	1.00	26.56	A C
ATOM	2333	CD	ARG	317	50.187	85.012	29.327	1.00	26.99	A C
ATOM	2334	NE	ARG	317	49.796	86.141	28.494	1.00	30.37	A N
ATOM	2335	CZ	ARG	317	49.278	87.269	28.966	1.00	30.55	A C
ATOM	2336	NH1	ARG	317	49.082	87.414	30.273	1.00	29.99	A N
ATOM	2337	NH2	ARG	317	48.972	88.256	28.132	1.00	28.53	A N
ATOM	2338	C	ARG	317	52.580	80.705	29.500	1.00	21.07	A C
ATOM	2339	O	ARG	317	52.175	79.920	30.359	1.00	19.79	A O
ATOM	2340	N	ARG	318	53.871	80.941	29.290	1.00	19.43	A N
ATOM	2341	CA	ARG	318	54.876	80.259	30.084	1.00	17.08	A C
ATOM	2342	CB	ARG	318	56.263	80.850	29.845	1.00	15.15	A C
ATOM	2343	CG	ARG	318	57.345	80.075	30.564	1.00	13.58	A C
ATOM	2344	CD	ARG	318	58.671	80.165	29.853	1.00	13.59	A C
ATOM	2345	NE	ARG	318	59.687	79.341	30.504	1.00	11.13	A N
ATOM	2346	CZ	ARG	318	60.895	79.135	30.001	1.00	10.46	A C
ATOM	2347	NH1	ARG	318	61.220	79.694	28.850	1.00	11.29	A N
ATOM	2348	NH2	ARG	318	61.773	78.378	30.642	1.00	10.86	A N
ATOM	2349	C	ARG	318	54.500	80.354	31.555	1.00	16.61	A C
ATOM	2350	O	ARG	318	54.794	79.448	32.318	1.00	20.33	A O
ATOM	2351	N	ILE	319	53.869	81.455	31.954	1.00	16.59	A N

(Continued)

FIG. 4-49

ATOM	2352	CA	ILE	319	53.396	81.607	33.330	1.00	17.40	A	C
ATOM	2353	CB	ILE	319	53.389	83.078	33.776	1.00	17.03	A	C
ATOM	2354	CG2	ILE	319	52.720	83.210	35.128	1.00	17.19	A	C
ATOM	2355	CG1	ILE	319	54.828	83.589	33.878	1.00	19.57	A	C
ATOM	2356	CD1	ILE	319	55.712	82.743	34.787	1.00	19.56	A	C
ATOM	2357	C	ILE	319	51.972	81.065	33.251	1.00	17.56	A	C
ATOM	2358	O	ILE	319	51.012	81.808	33.067	1.00	18.71	A	O
ATOM	2359	N	GLN	320	51.870	79.747	33.381	1.00	16.94	A	N
ATOM	2360	CA	GLN	320	50.623	79.001	33.246	1.00	16.12	A	C
ATOM	2361	CB	GLN	320	50.939	77.516	33.420	1.00	14.59	A	C
ATOM	2362	CG	GLN	320	52.000	77.044	32.444	1.00	12.17	A	C
ATOM	2363	CD	GLN	320	52.304	75.577	32.570	1.00	10.79	A	C
ATOM	2364	OE1	GLN	320	51.431	74.734	32.403	1.00	12.70	A	O
ATOM	2365	NE2	GLN	320	53.554	75.261	32.860	1.00	13.71	A	N
ATOM	2366	C	GLN	320	49.368	79.351	34.038	1.00	16.32	A	C
ATOM	2367	O	GLN	320	48.645	78.466	34.472	1.00	14.51	A	O
ATOM	2368	N	ASN	321	49.079	80.633	34.207	1.00	18.37	A	N
ATOM	2369	CA	ASN	321	47.871	81.010	34.931	1.00	19.38	A	C
ATOM	2370	CB	ASN	321	48.226	81.785	36.203	1.00	20.21	A	C
ATOM	2371	CG	ASN	321	48.776	83.166	35.925	1.00	23.59	A	C
ATOM	2372	OD1	ASN	321	49.166	83.491	34.804	1.00	22.35	A	O
ATOM	2373	ND2	ASN	321	48.801	83.975	36.980	1.00	27.82	A	N
ATOM	2374	C	ASN	321	46.983	81.843	34.020	1.00	18.69	A	C
ATOM	2375	O	ASN	321	46.095	82.555	34.479	1.00	19.10	A	O
ATOM	2376	N	TYR	322	47.222	81.715	32.719	1.00	17.65	A	N
ATOM	2377	CA	TYR	322	46.482	82.466	31.719	1.00	18.28	A	C
ATOM	2378	CB	TYR	322	47.105	83.856	31.599	1.00	18.09	A	C
ATOM	2379	CG	TYR	322	46.319	84.856	30.792	1.00	20.14	A	C
ATOM	2380	CD1	TYR	322	46.561	85.037	29.428	1.00	21.33	A	C
ATOM	2381	CE1	TYR	322	45.843	85.987	28.694	1.00	22.14	A	C
ATOM	2382	CD2	TYR	322	45.340	85.645	31.401	1.00	20.00	A	C
ATOM	2383	CE2	TYR	322	44.624	86.589	30.681	1.00	19.18	A	C
ATOM	2384	CZ	TYR	322	44.876	86.758	29.334	1.00	21.74	A	C
ATOM	2385	OH	TYR	322	44.163	87.704	28.638	1.00	24.04	A	O
ATOM	2386	C	TYR	322	46.518	81.750	30.363	1.00	18.70	A	C
ATOM	2387	O	TYR	322	47.583	81.587	29.764	1.00	18.36	A	O
ATOM	2388	N	SER	323	45.351	81.318	29.896	1.00	17.43	A	N
ATOM	2389	CA	SER	323	45.237	80.638	28.612	1.00	17.45	A	C
ATOM	2390	CB	SER	323	44.871	79.163	28.806	1.00	16.45	A	C
ATOM	2391	OG	SER	323	43.662	79.025	29.535	1.00	17.51	A	O
ATOM	2392	C	SER	323	44.163	81.320	27.777	1.00	17.88	A	C
ATOM	2393	O	SER	323	43.250	81.943	28.314	1.00	18.20	A	O
ATOM	2394	N	VAL	324	44.277	81.199	26.461	1.00	18.44	A	N
ATOM	2395	CA	VAL	324	43.309	81.802	25.555	1.00	18.83	A	C
ATOM	2396	CB	VAL	324	43.925	82.995	24.800	1.00	19.32	A	C
ATOM	2397	CG1	VAL	324	42.944	83.509	23.760	1.00	18.46	A	C
ATOM	2398	CG2	VAL	324	44.290	84.105	25.785	1.00	18.78	A	C
ATOM	2399	C	VAL	324	42.839	80.776	24.534	1.00	18.47	A	C
ATOM	2400	O	VAL	324	43.631	79.985	24.036	1.00	18.75	A	O

(Continued)

FIG. 4-50

ATOM	2401	N	MET	325	41.549	80.772	24.231	1.00	17.55	A	N
ATOM	2402	CA	MET	325	41.046	79.832	23.245	1.00	17.68	A	C
ATOM	2403	CB	MET	325	39.832	79.062	23.769	1.00	19.82	A	C
ATOM	2404	CG	MET	325	39.272	78.043	22.774	1.00	20.18	A	C
ATOM	2405	SD	MET	325	37.681	77.304	23.268	1.00	23.11	A	S
ATOM	2406	CE	MET	325	38.209	75.734	23.896	1.00	24.95	A	C
ATOM	2407	C	MET	325	40.641	80.584	21.999	1.00	18.03	A	C
ATOM	2408	O	MET	325	39.932	81.583	22.076	1.00	16.88	A	O
ATOM	2409	N	ASP	326	41.114	80.118	20.852	1.00	18.60	A	N
ATOM	2410	CA	ASP	326	40.749	80.738	19.595	1.00	20.69	A	C
ATOM	2411	CB	ASP	326	41.988	81.158	18.797	1.00	22.43	A	C
ATOM	2412	CG	ASP	326	42.329	82.638	18.970	1.00	26.03	A	C
ATOM	2413	OD1	ASP	326	41.511	83.384	19.547	1.00	26.48	A	O
ATOM	2414	OD2	ASP	326	43.415	83.063	18.518	1.00	28.75	A	O
ATOM	2415	C	ASP	326	39.924	79.739	18.800	1.00	19.88	A	C
ATOM	2416	O	ASP	326	40.254	78.563	18.729	1.00	21.77	A	O
ATOM	2417	N	ILE	327	38.832	80.208	18.223	1.00	20.27	A	N
ATOM	2418	CA	ILE	327	37.980	79.355	17.419	1.00	22.22	A	C
ATOM	2419	CB	ILE	327	36.529	79.393	17.941	1.00	20.50	A	C
ATOM	2420	CG2	ILE	327	35.600	78.697	16.985	1.00	19.07	A	C
ATOM	2421	CG1	ILE	327	36.483	78.691	19.305	1.00	21.51	A	C
ATOM	2422	CD1	ILE	327	35.164	78.766	20.006	1.00	20.97	A	C
ATOM	2423	C	ILE	327	38.113	79.908	16.015	1.00	23.66	A	C
ATOM	2424	O	ILE	327	37.625	80.984	15.716	1.00	26.18	A	O
ATOM	2425	N	CYS	328	38.804	79.162	15.161	1.00	26.09	A	N
ATOM	2426	CA	CYS	328	39.069	79.608	13.805	1.00	26.75	A	C
ATOM	2427	C	CYS	328	38.274	78.890	12.721	1.00	27.13	A	C
ATOM	2428	O	CYS	328	38.168	77.663	12.705	1.00	27.70	A	O
ATOM	2429	CB	CYS	328	40.564	79.481	13.547	1.00	27.02	A	C
ATOM	2430	SG	CYS	328	41.567	79.984	14.986	1.00	28.23	A	S
ATOM	2431	N	ASP	329	37.729	79.686	11.807	1.00	26.60	A	N
ATOM	2432	CA	ASP	329	36.913	79.198	10.710	1.00	26.21	A	C
ATOM	2433	CB	ASP	329	35.595	79.969	10.690	1.00	24.92	A	C
ATOM	2434	CG	ASP	329	34.684	79.595	11.842	1.00	26.75	A	C
ATOM	2435	OD1	ASP	329	35.181	79.407	12.969	1.00	27.44	A	O
ATOM	2436	OD2	ASP	329	33.460	79.493	11.625	1.00	28.96	A	O
ATOM	2437	C	ASP	329	37.613	79.349	9.367	1.00	28.54	A	C
ATOM	2438	O	ASP	329	38.314	80.334	9.120	1.00	29.27	A	O
ATOM	2439	N	TYR	330	37.416	78.371	8.492	1.00	29.31	A	N
ATOM	2440	CA	TYR	330	38.027	78.411	7.173	1.00	29.64	A	C
ATOM	2441	CB	TYR	330	38.011	77.019	6.542	1.00	30.55	A	C
ATOM	2442	CG	TYR	330	38.597	76.980	5.151	1.00	31.78	A	C
ATOM	2443	CD1	TYR	330	39.919	77.367	4.919	1.00	32.26	A	C
ATOM	2444	CE1	TYR	330	40.460	77.341	3.641	1.00	32.18	A	C
ATOM	2445	CD2	TYR	330	37.832	76.561	4.066	1.00	32.94	A	C
ATOM	2446	CE2	TYR	330	38.364	76.526	2.779	1.00	32.62	A	C
ATOM	2447	CZ	TYR	330	39.676	76.920	2.574	1.00	33.67	A	C
ATOM	2448	OH	TYR	330	40.193	76.914	1.299	1.00	34.33	A	O
ATOM	2449	C	TYR	330	37.314	79.387	6.243	1.00	30.14	A	C

(Continued)

FIG. 4-51

ATOM	2450	O	TYR	330	36.098	79.313	6.058	1.00	28.65	A	O
ATOM	2451	N	ASP	331	38.074	80.308	5.666	1.00	31.49	A	N
ATOM	2452	CA	ASP	331	37.511	81.262	4.730	1.00	33.80	A	C
ATOM	2453	CB	ASP	331	38.191	82.618	4.862	1.00	36.63	A	C
ATOM	2454	CG	ASP	331	37.573	83.661	3.956	1.00	39.35	A	C
ATOM	2455	OD1	ASP	331	37.570	83.455	2.724	1.00	40.70	A	O
ATOM	2456	OD2	ASP	331	37.084	84.684	4.479	1.00	42.41	A	O
ATOM	2457	C	ASP	331	37.750	80.696	3.336	1.00	35.29	A	C
ATOM	2458	O	ASP	331	38.865	80.730	2.817	1.00	35.63	A	O
ATOM	2459	N	GLU	332	36.690	80.170	2.743	1.00	36.11	A	N
ATOM	2460	CA	GLU	332	36.755	79.562	1.426	1.00	37.77	A	C
ATOM	2461	CB	GLU	332	35.388	78.970	1.080	1.00	38.87	A	C
ATOM	2462	CG	GLU	332	35.234	78.510	-0.354	1.00	43.60	A	C
ATOM	2463	CD	GLU	332	33.869	77.897	-0.620	1.00	47.15	A	C
ATOM	2464	OE1	GLU	332	33.494	77.771	-1.807	1.00	48.97	A	O
ATOM	2465	OE2	GLU	332	33.175	77.534	0.358	1.00	48.40	A	O
ATOM	2466	C	GLU	332	37.231	80.465	0.293	1.00	38.19	A	C
ATOM	2467	O	GLU	332	37.846	79.982	-0.655	1.00	39.73	A	O
ATOM	2468	N	SER	333	36.968	81.764	0.375	1.00	37.67	A	N
ATOM	2469	CA	SER	333	37.388	82.652	-0.704	1.00	38.09	A	C
ATOM	2470	CB	SER	333	36.445	83.858	-0.814	1.00	38.48	A	C
ATOM	2471	OG	SER	333	36.669	84.795	0.223	1.00	40.60	A	O
ATOM	2472	C	SER	333	38.826	83.135	-0.577	1.00	37.74	A	C
ATOM	2473	O	SER	333	39.324	83.838	-1.448	1.00	38.52	A	O
ATOM	2474	N	SER	334	39.496	82.761	0.506	1.00	38.49	A	N
ATOM	2475	CA	SER	334	40.883	83.163	0.708	1.00	37.49	A	C
ATOM	2476	CB	SER	334	40.995	84.180	1.844	1.00	38.50	A	C
ATOM	2477	OG	SER	334	40.954	83.536	3.108	1.00	38.48	A	O
ATOM	2478	C	SER	334	41.722	81.947	1.058	1.00	35.98	A	C
ATOM	2479	O	SER	334	42.941	82.029	1.148	1.00	36.41	A	O
ATOM	2480	N	GLY	335	41.064	80.817	1.263	1.00	35.13	A	N
ATOM	2481	CA	GLY	335	41.797	79.620	1.620	1.00	35.71	A	C
ATOM	2482	C	GLY	335	42.579	79.872	2.894	1.00	35.19	A	C
ATOM	2483	O	GLY	335	43.574	79.201	3.172	1.00	35.61	A	O
ATOM	2484	N	ARG	336	42.128	80.855	3.666	1.00	33.99	A	N
ATOM	2485	CA	ARG	336	42.783	81.197	4.919	1.00	33.15	A	C
ATOM	2486	CB	ARG	336	43.066	82.696	4.991	1.00	36.78	A	C
ATOM	2487	CG	ARG	336	43.957	83.232	3.884	1.00	42.04	A	C
ATOM	2488	CD	ARG	336	44.807	84.374	4.416	1.00	45.76	A	C
ATOM	2489	NE	ARG	336	44.010	85.359	5.147	1.00	48.92	A	N
ATOM	2490	CZ	ARG	336	44.510	86.192	6.055	1.00	50.76	A	C
ATOM	2491	NH1	ARG	336	45.805	86.159	6.348	1.00	52.08	A	N
ATOM	2492	NH2	ARG	336	43.718	87.057	6.675	1.00	52.33	A	N
ATOM	2493	C	ARG	336	41.935	80.801	6.118	1.00	30.26	A	C
ATOM	2494	O	ARG	336	40.763	80.449	5.981	1.00	29.07	A	O
ATOM	2495	N	TRP	337	42.544	80.869	7.294	1.00	26.94	A	N
ATOM	2496	CA	TRP	337	41.869	80.531	8.533	1.00	24.29	A	C
ATOM	2497	CB	TRP	337	42.616	79.403	9.248	1.00	19.88	A	C
ATOM	2498	CG	TRP	337	42.460	78.074	8.561	1.00	15.10	A	C

(Continued)

FIG. 4-52

ATOM	2499	CD2	TRP	337	41.481	77.077	8.861	1.00	9.80	A	C
ATOM	2500	CE2	TRP	337	41.651	76.026	7.927	1.00	9.92	A	C
ATOM	2501	CE3	TRP	337	40.475	76.970	9.825	1.00	7.74	A	C
ATOM	2502	CD1	TRP	337	43.173	77.601	7.485	1.00	12.90	A	C
ATOM	2503	NE1	TRP	337	42.688	76.369	7.099	1.00	9.82	A	N
ATOM	2504	CZ2	TRP	337	40.849	74.885	7.935	1.00	9.71	A	C
ATOM	2505	CZ3	TRP	337	39.675	75.836	9.832	1.00	7.79	A	C
ATOM	2506	CH2	TRP	337	39.866	74.808	8.894	1.00	10.33	A	C
ATOM	2507	C	TRP	337	41.783	81.758	9.425	1.00	24.55	A	C
ATOM	2508	O	TRP	337	42.794	82.360	9.766	1.00	26.73	A	O
ATOM	2509	N	ASN	338	40.570	82.128	9.806	1.00	25.00	A	N
ATOM	2510	CA	ASN	338	40.381	83.296	10.648	1.00	26.17	A	C
ATOM	2511	CB	ASN	338	39.464	84.300	9.949	1.00	28.44	A	C
ATOM	2512	CG	ASN	338	40.016	84.761	8.612	1.00	30.42	A	C
ATOM	2513	OD1	ASN	338	39.320	84.711	7.596	1.00	32.04	A	O
ATOM	2514	ND2	ASN	338	41.271	85.217	8.606	1.00	28.33	A	N
ATOM	2515	C	ASN	338	39.810	82.958	12.012	1.00	25.29	A	C
ATOM	2516	O	ASN	338	38.957	82.084	12.148	1.00	25.29	A	O
ATOM	2517	N	CYS	339	40.293	83.668	13.023	1.00	25.00	A	N
ATOM	2518	CA	CYS	339	39.833	83.482	14.389	1.00	24.73	A	C
ATOM	2519	C	CYS	339	39.289	84.829	14.888	1.00	22.42	A	C
ATOM	2520	O	CYS	339	40.051	85.717	15.249	1.00	21.56	A	O
ATOM	2521	CB	CYS	339	40.992	83.014	15.285	1.00	25.93	A	C
ATOM	2522	SG	CYS	339	42.199	81.865	14.526	1.00	29.61	A	S
ATOM	2523	N	LEU	340	37.968	84.978	14.889	1.00	22.38	A	N
ATOM	2524	CA	LEU	340	37.333	86.212	15.347	1.00	20.83	A	C
ATOM	2525	CB	LEU	340	35.839	86.185	15.069	1.00	19.89	A	C
ATOM	2526	CG	LEU	340	35.364	86.201	13.626	1.00	19.14	A	C
ATOM	2527	CD1	LEU	340	33.877	85.883	13.593	1.00	19.65	A	C
ATOM	2528	CD2	LEU	340	35.647	87.551	13.012	1.00	19.21	A	C
ATOM	2529	C	LEU	340	37.521	86.406	16.835	1.00	20.16	A	C
ATOM	2530	O	LEU	340	37.337	85.478	17.615	1.00	20.80	A	O
ATOM	2531	N	VAL	341	37.866	87.625	17.225	1.00	20.46	A	N
ATOM	2532	CA	VAL	341	38.066	87.949	18.627	1.00	20.11	A	C
ATOM	2533	CB	VAL	341	38.536	89.399	18.786	1.00	21.45	A	C
ATOM	2534	CG1	VAL	341	38.972	89.647	20.221	1.00	22.38	A	C
ATOM	2535	CG2	VAL	341	39.688	89.672	17.819	1.00	24.28	A	C
ATOM	2536	C	VAL	341	36.770	87.749	19.403	1.00	18.51	A	C
ATOM	2537	O	VAL	341	36.785	87.423	20.585	1.00	17.77	A	O
ATOM	2538	N	ALA	342	35.644	87.941	18.731	1.00	19.68	A	N
ATOM	2539	CA	ALA	342	34.345	87.756	19.370	1.00	19.64	A	C
ATOM	2540	CB	ALA	342	33.228	88.125	18.407	1.00	18.89	A	C
ATOM	2541	C	ALA	342	34.177	86.302	19.829	1.00	19.19	A	C
ATOM	2542	O	ALA	342	33.245	85.987	20.580	1.00	18.12	A	O
ATOM	2543	N	ARG	343	35.078	85.422	19.384	1.00	16.06	A	N
ATOM	2544	CA	ARG	343	35.008	84.017	19.766	1.00	16.37	A	C
ATOM	2545	CB	ARG	343	34.962	83.138	18.521	1.00	18.14	A	C
ATOM	2546	CG	ARG	343	33.726	83.390	17.687	1.00	20.31	A	C
ATOM	2547	CD	ARG	343	33.803	82.695	16.357	1.00	21.82	A	C

(Continued)

FIG. 4-53

ATOM	2548	NE	ARG	343	32.615	82.969	15.561	1.00	23.94	A	N
ATOM	2549	CZ	ARG	343	32.373	82.415	14.383	1.00	26.14	A	C
ATOM	2550	NH1	ARG	343	33.242	81.559	13.864	1.00	28.42	A	N
ATOM	2551	NH2	ARG	343	31.256	82.703	13.734	1.00	30.23	A	N
ATOM	2552	C	ARG	343	36.164	83.603	20.650	1.00	17.09	A	C
ATOM	2553	O	ARG	343	36.275	82.452	21.057	1.00	16.76	A	O
ATOM	2554	N	GLN	344	37.030	84.553	20.955	1.00	18.05	A	N
ATOM	2555	CA	GLN	344	38.175	84.267	21.791	1.00	18.90	A	C
ATOM	2556	CB	GLN	344	39.191	85.385	21.645	1.00	18.03	A	C
ATOM	2557	CG	GLN	344	40.585	85.012	22.038	1.00	17.99	A	C
ATOM	2558	CD	GLN	344	41.571	86.088	21.657	1.00	18.02	A	C
ATOM	2559	OE1	GLN	344	41.711	87.089	22.353	1.00	17.71	A	O
ATOM	2560	NE2	GLN	344	42.246	85.897	20.527	1.00	17.42	A	N
ATOM	2561	C	GLN	344	37.708	84.170	23.234	1.00	19.61	A	C
ATOM	2562	O	GLN	344	37.069	85.087	23.730	1.00	21.89	A	O
ATOM	2563	N	HIS	345	38.013	83.057	23.897	1.00	18.47	A	N
ATOM	2564	CA	HIS	345	37.624	82.868	25.287	1.00	17.92	A	C
ATOM	2565	CB	HIS	345	36.786	81.600	25.453	1.00	16.07	A	C
ATOM	2566	CG	HIS	345	35.478	81.641	24.726	1.00	15.01	A	C
ATOM	2567	CD2	HIS	345	34.223	81.895	25.164	1.00	14.43	A	C
ATOM	2568	ND1	HIS	345	35.371	81.420	23.369	1.00	15.56	A	N
ATOM	2569	CE1	HIS	345	34.108	81.535	23.002	1.00	12.57	A	C
ATOM	2570	NE2	HIS	345	33.390	81.823	24.073	1.00	14.20	A	N
ATOM	2571	C	HIS	345	38.854	82.789	26.172	1.00	19.64	A	C
ATOM	2572	O	HIS	345	39.839	82.129	25.825	1.00	22.18	A	O
ATOM	2573	N	ILE	346	38.790	83.460	27.319	1.00	20.11	A	N
ATOM	2574	CA	ILE	346	39.899	83.501	28.264	1.00	21.08	A	C
ATOM	2575	CB	ILE	346	40.135	84.928	28.760	1.00	20.44	A	C
ATOM	2576	CG2	ILE	346	41.357	84.972	29.667	1.00	20.95	A	C
ATOM	2577	CG1	ILE	346	40.338	85.860	27.572	1.00	19.87	A	C
ATOM	2578	CD1	ILE	346	40.466	87.298	27.978	1.00	22.20	A	C
ATOM	2579	C	ILE	346	39.657	82.624	29.482	1.00	23.76	A	C
ATOM	2580	O	ILE	346	38.535	82.537	29.975	1.00	24.67	A	O
ATOM	2581	N	GLU	347	40.714	81.976	29.967	1.00	25.01	A	N
ATOM	2582	CA	GLU	347	40.601	81.123	31.141	1.00	28.30	A	C
ATOM	2583	CB	GLU	347	40.459	79.656	30.733	1.00	26.51	A	C
ATOM	2584	CG	GLU	347	40.089	78.740	31.891	1.00	27.38	A	C
ATOM	2585	CD	GLU	347	40.169	77.268	31.527	1.00	29.51	A	C
ATOM	2586	OE1	GLU	347	39.877	76.936	30.359	1.00	29.48	A	O
ATOM	2587	OE2	GLU	347	40.511	76.439	32.405	1.00	29.57	A	O
ATOM	2588	C	GLU	347	41.836	81.288	32.021	1.00	30.87	A	C
ATOM	2589	O	GLU	347	42.865	80.661	31.777	1.00	33.35	A	O
ATOM	2590	N	MET	348	41.741	82.131	33.044	1.00	32.50	A	N
ATOM	2591	CA	MET	348	42.877	82.347	33.926	1.00	34.46	A	C
ATOM	2592	CB	MET	348	43.215	83.843	34.002	1.00	37.48	A	C
ATOM	2593	CG	MET	348	42.168	84.723	34.661	1.00	41.62	A	C
ATOM	2594	SD	MET	348	42.028	86.340	33.825	1.00	48.03	A	S
ATOM	2595	CE	MET	348	43.541	87.158	34.341	1.00	46.60	A	C
ATOM	2596	C	MET	348	42.628	81.784	35.315	1.00	33.55	A	C

(Continued)

FIG. 4-54

ATOM	2597	O	MET	348	41.656	81.070	35.541	1.00	34.35	A	O
ATOM	2598	N	SER	349	43.534	82.085	36.235	1.00	32.30	A	N
ATOM	2599	CA	SER	349	43.428	81.623	37.612	1.00	31.26	A	C
ATOM	2600	CB	SER	349	43.961	80.197	37.744	1.00	31.22	A	C
ATOM	2601	OG	SER	349	43.912	79.760	39.090	1.00	32.92	A	O
ATOM	2602	C	SER	349	44.244	82.573	38.474	1.00	31.16	A	C
ATOM	2603	O	SER	349	45.355	82.950	38.113	1.00	31.25	A	O
ATOM	2604	N	THR	350	43.682	82.962	39.611	1.00	30.83	A	N
ATOM	2605	CA	THR	350	44.340	83.896	40.516	1.00	28.43	A	C
ATOM	2606	CB	THR	350	43.325	84.938	41.027	1.00	28.93	A	C
ATOM	2607	OG1	THR	350	42.251	84.268	41.703	1.00	27.68	A	O
ATOM	2608	CG2	THR	350	42.751	85.733	39.864	1.00	27.87	A	C
ATOM	2609	C	THR	350	44.971	83.198	41.714	1.00	27.14	A	C
ATOM	2610	O	THR	350	45.781	83.786	42.431	1.00	27.62	A	O
ATOM	2611	N	THR	351	44.610	81.936	41.913	1.00	25.72	A	N
ATOM	2612	CA	THR	351	45.109	81.161	43.035	1.00	24.77	A	C
ATOM	2613	CB	THR	351	43.945	80.536	43.786	1.00	25.52	A	C
ATOM	2614	OG1	THR	351	43.166	79.746	42.877	1.00	24.95	A	O
ATOM	2615	CG2	THR	351	43.069	81.617	44.385	1.00	24.61	A	C
ATOM	2616	C	THR	351	46.081	80.047	42.659	1.00	25.48	A	C
ATOM	2617	O	THR	351	46.648	79.392	43.535	1.00	25.57	A	O
ATOM	2618	N	GLY	352	46.261	79.825	41.361	1.00	25.19	A	N
ATOM	2619	CA	GLY	352	47.170	78.786	40.909	1.00	24.62	A	C
ATOM	2620	C	GLY	352	47.371	78.797	39.403	1.00	24.61	A	C
ATOM	2621	O	GLY	352	47.417	79.853	38.774	1.00	25.15	A	O
ATOM	2622	N	TRP	353	47.499	77.612	38.825	1.00	23.36	A	N
ATOM	2623	CA	TRP	353	47.684	77.470	37.390	1.00	21.38	A	C
ATOM	2624	CB	TRP	353	48.631	76.291	37.116	1.00	17.49	A	C
ATOM	2625	CG	TRP	353	48.272	75.023	37.849	1.00	16.34	A	C
ATOM	2626	CD2	TRP	353	48.587	74.693	39.209	1.00	14.04	A	C
ATOM	2627	CE2	TRP	353	48.053	73.409	39.462	1.00	14.33	A	C
ATOM	2628	CE3	TRP	353	49.270	75.356	40.238	1.00	14.55	A	C
ATOM	2629	CD1	TRP	353	47.578	73.957	37.351	1.00	14.89	A	C
ATOM	2630	NE1	TRP	353	47.445	72.985	38.311	1.00	12.84	A	N
ATOM	2631	CZ2	TRP	353	48.180	72.768	40.709	1.00	14.93	A	C
ATOM	2632	CZ3	TRP	353	49.398	74.719	41.480	1.00	15.27	A	C
ATOM	2633	CH2	TRP	353	48.853	73.436	41.700	1.00	15.07	A	C
ATOM	2634	C	TRP	353	46.303	77.236	36.782	1.00	22.43	A	C
ATOM	2635	O	TRP	353	45.307	77.292	37.495	1.00	22.69	A	O
ATOM	2636	N	VAL	354	46.231	76.990	35.479	1.00	22.83	A	N
ATOM	2637	CA	VAL	354	44.944	76.749	34.836	1.00	24.15	A	C
ATOM	2638	CB	VAL	354	44.818	77.513	33.498	1.00	25.09	A	C
ATOM	2639	CG1	VAL	354	43.610	77.006	32.718	1.00	24.29	A	C
ATOM	2640	CG2	VAL	354	44.673	79.007	33.762	1.00	24.71	A	C
ATOM	2641	C	VAL	354	44.799	75.264	34.569	1.00	24.96	A	C
ATOM	2642	O	VAL	354	45.751	74.628	34.127	1.00	26.10	A	O
ATOM	2643	N	GLY	355	43.609	74.722	34.841	1.00	24.28	A	N
ATOM	2644	CA	GLY	355	43.354	73.303	34.640	1.00	22.67	A	C
ATOM	2645	C	GLY	355	44.040	72.457	35.696	1.00	22.77	A	C

(Continued)

FIG. 4-55

ATOM	2646	O	GLY	355	44.743	72.989	36.548	1.00	22.56	A	O
ATOM	2647	N	ARG	356	43.843	71.145	35.668	1.00	23.29	A	N
ATOM	2648	CA	ARG	356	44.505	70.299	36.654	1.00	24.86	A	C
ATOM	2649	CB	ARG	356	43.927	68.886	36.645	1.00	24.91	A	C
ATOM	2650	CG	ARG	356	42.495	68.808	37.122	1.00	27.84	A	C
ATOM	2651	CD	ARG	356	41.973	67.391	37.036	1.00	31.58	A	C
ATOM	2652	NE	ARG	356	40.518	67.340	37.149	1.00	35.53	A	N
ATOM	2653	CZ	ARG	356	39.849	67.607	38.261	1.00	37.59	A	C
ATOM	2654	NH1	ARG	356	40.513	67.939	39.362	1.00	40.39	A	N
ATOM	2655	NH2	ARG	356	38.520	67.547	38.272	1.00	37.65	A	N
ATOM	2656	C	ARG	356	45.989	70.255	36.314	1.00	25.60	A	C
ATOM	2657	O	ARG	356	46.844	70.508	37.163	1.00	28.06	A	O
ATOM	2658	N	PHE	357	46.285	69.940	35.060	1.00	23.61	A	N
ATOM	2659	CA	PHE	357	47.659	69.876	34.587	1.00	21.95	A	C
ATOM	2660	CB	PHE	357	48.029	68.442	34.205	1.00	15.99	A	C
ATOM	2661	CG	PHE	357	48.173	67.524	35.380	1.00	12.89	A	C
ATOM	2662	CD1	PHE	357	49.361	67.491	36.115	1.00	11.73	A	C
ATOM	2663	CD2	PHE	357	47.126	66.693	35.763	1.00	10.46	A	C
ATOM	2664	CE1	PHE	357	49.507	66.638	37.216	1.00	7.55	A	C
ATOM	2665	CE2	PHE	357	47.263	65.838	36.863	1.00	11.70	A	C
ATOM	2666	CZ	PHE	357	48.459	65.811	37.591	1.00	6.24	A	C
ATOM	2667	C	PHE	357	47.775	70.786	33.377	1.00	23.17	A	C
ATOM	2668	O	PHE	357	48.877	71.196	33.005	1.00	26.25	A	O
ATOM	2669	N	ARG	358	46.626	71.100	32.782	1.00	20.84	A	N
ATOM	2670	CA	ARG	358	46.541	71.972	31.615	1.00	20.05	A	C
ATOM	2671	CB	ARG	358	47.156	71.297	30.396	1.00	19.30	A	C
ATOM	2672	CG	ARG	358	46.496	69.991	30.011	1.00	21.15	A	C
ATOM	2673	CD	ARG	358	46.866	69.613	28.598	1.00	24.58	A	C
ATOM	2674	NE	ARG	358	46.293	68.333	28.205	1.00	31.68	A	N
ATOM	2675	CZ	ARG	358	46.163	67.924	26.943	1.00	34.22	A	C
ATOM	2676	NH1	ARG	358	46.564	68.701	25.939	1.00	31.56	A	N
ATOM	2677	NH2	ARG	358	45.640	66.727	26.687	1.00	33.62	A	N
ATOM	2678	C	ARG	358	45.081	72.315	31.313	1.00	20.40	A	C
ATOM	2679	O	ARG	358	44.168	71.608	31.734	1.00	20.47	A	O
ATOM	2680	N	PRO	359	44.840	73.404	30.570	1.00	21.33	A	N
ATOM	2681	CD	PRO	359	45.785	74.338	29.940	1.00	20.09	A	C
ATOM	2682	CA	PRO	359	43.455	73.772	30.254	1.00	21.44	A	C
ATOM	2683	CB	PRO	359	43.624	74.911	29.264	1.00	20.76	A	C
ATOM	2684	CG	PRO	359	44.907	75.539	29.713	1.00	21.86	A	C
ATOM	2685	C	PRO	359	42.741	72.574	29.652	1.00	21.94	A	C
ATOM	2686	O	PRO	359	43.314	71.866	28.827	1.00	21.94	A	O
ATOM	2687	N	SER	360	41.499	72.350	30.070	1.00	22.48	A	N
ATOM	2688	CA	SER	360	40.723	71.208	29.596	1.00	24.26	A	C
ATOM	2689	CB	SER	360	39.501	70.986	30.497	1.00	25.29	A	C
ATOM	2690	OG	SER	360	38.505	71.976	30.283	1.00	27.66	A	O
ATOM	2691	C	SER	360	40.262	71.280	28.140	1.00	25.67	A	C
ATOM	2692	O	SER	360	40.117	72.359	27.555	1.00	25.66	A	O
ATOM	2693	N	GLU	361	40.024	70.104	27.573	1.00	25.65	A	N
ATOM	2694	CA	GLU	361	39.581	69.972	26.199	1.00	27.20	A	C

(Continued)

FIG. 4-56

ATOM	2695	CB	GLU	361	39.803	68.540	25.713	1.00	30.37	A C
ATOM	2696	CG	GLU	361	39.356	67.444	26.683	1.00	36.42	A C
ATOM	2697	CD	GLU	361	40.340	67.226	27.839	1.00	42.80	A C
ATOM	2698	OE1	GLU	361	40.317	68.002	28.822	1.00	43.77	A O
ATOM	2699	OE2	GLU	361	41.152	66.274	27.757	1.00	46.60	A O
ATOM	2700	C	GLU	361	38.112	70.324	26.052	1.00	25.88	A C
ATOM	2701	O	GLU	361	37.295	69.955	26.888	1.00	27.12	A O
ATOM	2702	N	PRO	362	37.760	71.061	24.989	1.00	23.97	A N
ATOM	2703	CD	PRO	362	38.650	71.837	24.106	1.00	23.33	A C
ATOM	2704	CA	PRO	362	36.365	71.436	24.767	1.00	22.45	A C
ATOM	2705	CB	PRO	362	36.485	72.714	23.945	1.00	23.21	A C
ATOM	2706	CG	PRO	362	37.679	72.437	23.100	1.00	21.08	A C
ATOM	2707	C	PRO	362	35.621	70.338	24.013	1.00	21.91	A C
ATOM	2708	O	PRO	362	36.216	69.582	23.249	1.00	22.96	A O
ATOM	2709	N	HIS	363	34.318	70.259	24.245	1.00	21.59	A N
ATOM	2710	CA	HIS	363	33.459	69.280	23.596	1.00	19.88	A C
ATOM	2711	CB	HIS	363	32.868	68.353	24.649	1.00	18.03	A C
ATOM	2712	CG	HIS	363	33.898	67.568	25.398	1.00	16.56	A C
ATOM	2713	CD2	HIS	363	34.638	67.880	26.489	1.00	16.19	A C
ATOM	2714	ND1	HIS	363	34.292	66.303	25.019	1.00	14.56	A N
ATOM	2715	CE1	HIS	363	35.227	65.869	25.843	1.00	14.60	A C
ATOM	2716	NE2	HIS	363	35.457	66.808	26.744	1.00	16.65	A N
ATOM	2717	C	HIS	363	32.364	70.081	22.903	1.00	20.84	A C
ATOM	2718	O	HIS	363	31.535	70.709	23.564	1.00	20.84	A O
ATOM	2719	N	PHE	364	32.383	70.075	21.573	1.00	19.87	A N
ATOM	2720	CA	PHE	364	31.416	70.832	20.786	1.00	18.84	A C
ATOM	2721	CB	PHE	364	32.042	71.310	19.470	1.00	18.67	A C
ATOM	2722	CG	PHE	364	33.073	72.390	19.629	1.00	18.84	A C
ATOM	2723	CD1	PHE	364	34.341	72.096	20.117	1.00	17.51	A C
ATOM	2724	CD2	PHE	364	32.776	73.708	19.274	1.00	16.76	A C
ATOM	2725	CE1	PHE	364	35.298	73.095	20.246	1.00	16.92	A C
ATOM	2726	CE2	PHE	364	33.727	74.711	19.401	1.00	16.24	A C
ATOM	2727	CZ	PHE	364	34.988	74.404	19.886	1.00	16.59	A C
ATOM	2728	C	PHE	364	30.172	70.046	20.432	1.00	19.35	A C
ATOM	2729	O	PHE	364	30.226	68.831	20.262	1.00	20.71	A O
ATOM	2730	N	THR	365	29.050	70.750	20.313	1.00	18.81	A N
ATOM	2731	CA	THR	365	27.805	70.113	19.912	1.00	18.11	A C
ATOM	2732	CB	THR	365	26.600	71.017	20.161	1.00	17.38	A C
ATOM	2733	OG1	THR	365	26.521	71.991	19.119	1.00	22.40	A O
ATOM	2734	CG2	THR	365	26.741	71.734	21.487	1.00	13.72	A C
ATOM	2735	C	THR	365	28.001	69.954	18.409	1.00	17.58	A C
ATOM	2736	O	THR	365	28.823	70.650	17.824	1.00	16.70	A O
ATOM	2737	N	LEU	366	27.250	69.058	17.784	1.00	19.74	A N
ATOM	2738	CA	LEU	366	27.388	68.799	16.350	1.00	19.89	A C
ATOM	2739	CB	LEU	366	26.237	67.923	15.860	1.00	19.49	A C
ATOM	2740	CG	LEU	366	26.338	67.381	14.431	1.00	19.63	A C
ATOM	2741	CD1	LEU	366	27.606	66.542	14.282	1.00	20.45	A C
ATOM	2742	CD2	LEU	366	25.112	66.539	14.128	1.00	17.80	A C
ATOM	2743	C	LEU	366	27.503	70.017	15.438	1.00	21.11	A C

(Continued)

FIG. 4-57

ATOM	2744	O	LEU	366	28.269	69.989	14.476	1.00	24.21	A	O
ATOM	2745	N	ASP	367	26.764	71.084	15.722	1.00	21.26	A	N
ATOM	2746	CA	ASP	367	26.830	72.261	14.867	1.00	22.95	A	C
ATOM	2747	CB	ASP	367	25.567	73.114	15.005	1.00	26.09	A	C
ATOM	2748	CG	ASP	367	25.458	73.796	16.355	1.00	29.82	A	C
ATOM	2749	OD1	ASP	367	26.469	73.849	17.094	1.00	28.76	A	O
ATOM	2750	OD2	ASP	367	24.352	74.296	16.669	1.00	31.88	A	O
ATOM	2751	C	ASP	367	28.047	73.130	15.139	1.00	22.76	A	C
ATOM	2752	O	ASP	367	28.274	74.122	14.448	1.00	25.46	A	O
ATOM	2753	N	GLY	368	28.818	72.772	16.155	1.00	21.02	A	N
ATOM	2754	CA	GLY	368	30.001	73.541	16.480	1.00	18.54	A	C
ATOM	2755	C	GLY	368	29.740	74.946	16.987	1.00	17.42	A	C
ATOM	2756	O	GLY	368	30.678	75.690	17.237	1.00	17.82	A	O
ATOM	2757	N	ASN	369	28.482	75.324	17.164	1.00	17.57	A	N
ATOM	2758	CA	ASN	369	28.196	76.669	17.647	1.00	17.82	A	C
ATOM	2759	CB	ASN	369	26.838	77.129	17.144	1.00	18.92	A	C
ATOM	2760	CG	ASN	369	26.797	77.234	15.649	1.00	22.41	A	C
ATOM	2761	OD1	ASN	369	27.657	77.871	15.038	1.00	23.56	A	O
ATOM	2762	ND2	ASN	369	25.798	76.606	15.038	1.00	26.52	A	N
ATOM	2763	C	ASN	369	28.270	76.838	19.158	1.00	16.27	A	C
ATOM	2764	O	ASN	369	28.185	77.949	19.665	1.00	16.44	A	O
ATOM	2765	N	SER	370	28.432	75.742	19.882	1.00	15.67	A	N
ATOM	2766	CA	SER	370	28.533	75.824	21.330	1.00	16.34	A	C
ATOM	2767	CB	SER	370	27.145	75.766	21.971	1.00	14.45	A	C
ATOM	2768	OG	SER	370	26.523	74.518	21.739	1.00	14.37	A	O
ATOM	2769	C	SER	370	29.381	74.660	21.797	1.00	16.66	A	C
ATOM	2770	O	SER	370	29.565	73.701	21.058	1.00	18.15	A	O
ATOM	2771	N	PHE	371	29.910	74.742	23.014	1.00	17.09	A	N
ATOM	2772	CA	PHE	371	30.735	73.660	23.532	1.00	16.28	A	C
ATOM	2773	CB	PHE	371	32.194	73.808	23.062	1.00	14.83	A	C
ATOM	2774	CG	PHE	371	32.881	75.062	23.546	1.00	11.31	A	C
ATOM	2775	CD1	PHE	371	32.799	76.243	22.818	1.00	11.07	A	C
ATOM	2776	CD2	PHE	371	33.635	75.050	24.726	1.00	11.89	A	C
ATOM	2777	CE1	PHE	371	33.465	77.409	23.256	1.00	12.04	A	C
ATOM	2778	CE2	PHE	371	34.302	76.205	25.178	1.00	9.92	A	C
ATOM	2779	CZ	PHE	371	34.219	77.383	24.444	1.00	9.76	A	C
ATOM	2780	C	PHE	371	30.703	73.545	25.048	1.00	16.26	A	C
ATOM	2781	O	PHE	371	30.362	74.495	25.752	1.00	15.15	A	O
ATOM	2782	N	TYR	372	31.053	72.360	25.536	1.00	16.67	A	N
ATOM	2783	CA	TYR	372	31.091	72.089	26.962	1.00	16.84	A	C
ATOM	2784	CB	TYR	372	30.349	70.801	27.271	1.00	16.79	A	C
ATOM	2785	CG	TYR	372	28.892	70.879	26.914	1.00	18.47	A	C
ATOM	2786	CD1	TYR	372	28.470	70.744	25.589	1.00	16.97	A	C
ATOM	2787	CE1	TYR	372	27.129	70.850	25.255	1.00	19.91	A	C
ATOM	2788	CD2	TYR	372	27.931	71.124	27.901	1.00	18.26	A	C
ATOM	2789	CE2	TYR	372	26.592	71.235	27.581	1.00	19.23	A	C
ATOM	2790	CZ	TYR	372	26.193	71.097	26.258	1.00	21.51	A	C
ATOM	2791	OH	TYR	372	24.860	71.210	25.944	1.00	23.32	A	O
ATOM	2792	C	TYR	372	32.547	71.977	27.367	1.00	18.35	A	C

(Continued)

FIG. 4-58

ATOM	2793	O	TYR	372	33.388	71.557	26.571	1.00	20.30	A	O
ATOM	2794	N	LYS	373	32.845	72.325	28.611	1.00	18.89	A	N
ATOM	2795	CA	LYS	373	34.224	72.318	29.071	1.00	19.69	A	C
ATOM	2796	CB	LYS	373	34.907	73.541	28.459	1.00	19.69	A	C
ATOM	2797	CG	LYS	373	36.302	73.863	28.889	1.00	20.48	A	C
ATOM	2798	CD	LYS	373	36.658	75.193	28.240	1.00	23.59	A	C
ATOM	2799	CE	LYS	373	38.048	75.703	28.601	1.00	25.15	A	C
ATOM	2800	NZ	LYS	373	38.103	77.196	28.404	1.00	24.26	A	N
ATOM	2801	C	LYS	373	34.277	72.369	30.593	1.00	20.26	A	C
ATOM	2802	O	LYS	373	33.474	73.050	31.231	1.00	21.08	A	O
ATOM	2803	N	ILE	374	35.215	71.634	31.176	1.00	20.43	A	N
ATOM	2804	CA	ILE	374	35.358	71.624	32.621	1.00	19.63	A	C
ATOM	2805	CB	ILE	374	35.960	70.309	33.123	1.00	19.72	A	C
ATOM	2806	CG2	ILE	374	36.100	70.361	34.650	1.00	19.46	A	C
ATOM	2807	CG1	ILE	374	35.095	69.128	32.667	1.00	19.17	A	C
ATOM	2808	CD1	ILE	374	35.652	67.753	33.079	1.00	15.57	A	C
ATOM	2809	C	ILE	374	36.290	72.745	33.046	1.00	19.75	A	C
ATOM	2810	O	ILE	374	37.408	72.846	32.551	1.00	21.23	A	O
ATOM	2811	N	ILE	375	35.824	73.595	33.951	1.00	20.12	A	N
ATOM	2812	CA	ILE	375	36.643	74.684	34.456	1.00	20.15	A	C
ATOM	2813	CB	ILE	375	36.396	76.014	33.700	1.00	20.38	A	C
ATOM	2814	CG2	ILE	375	36.685	75.837	32.215	1.00	20.24	A	C
ATOM	2815	CG1	ILE	375	34.966	76.488	33.919	1.00	20.36	A	C
ATOM	2816	CD1	ILE	375	34.645	77.772	33.186	1.00	21.00	A	C
ATOM	2817	C	ILE	375	36.346	74.893	35.929	1.00	21.63	A	C
ATOM	2818	O	ILE	375	35.283	74.512	36.426	1.00	21.72	A	O
ATOM	2819	N	SER	376	37.301	75.481	36.634	1.00	22.04	A	N
ATOM	2820	CA	SER	376	37.132	75.740	38.051	1.00	23.67	A	C
ATOM	2821	CB	SER	376	38.449	76.228	38.632	1.00	21.76	A	C
ATOM	2822	OG	SER	376	38.336	76.411	40.022	1.00	26.97	A	O
ATOM	2823	C	SER	376	36.063	76.809	38.210	1.00	24.46	A	C
ATOM	2824	O	SER	376	36.042	77.768	37.445	1.00	27.59	A	O
ATOM	2825	N	ASN	377	35.164	76.659	39.177	1.00	25.41	A	N
ATOM	2826	CA	ASN	377	34.128	77.673	39.356	1.00	26.19	A	C
ATOM	2827	CB	ASN	377	32.755	77.023	39.602	1.00	25.06	A	C
ATOM	2828	CG	ASN	377	32.682	76.222	40.894	1.00	22.15	A	C
ATOM	2829	OD1	ASN	377	33.560	76.294	41.750	1.00	23.03	A	O
ATOM	2830	ND2	ASN	377	31.606	75.457	41.039	1.00	20.01	A	N
ATOM	2831	C	ASN	377	34.447	78.685	40.456	1.00	28.48	A	C
ATOM	2832	O	ASN	377	35.574	78.733	40.960	1.00	29.51	A	O
ATOM	2833	N	GLU	378	33.461	79.498	40.822	1.00	30.42	A	N
ATOM	2834	CA	GLU	378	33.659	80.518	41.845	1.00	33.25	A	C
ATOM	2835	CB	GLU	378	32.401	81.390	41.988	1.00	36.97	A	C
ATOM	2836	CG	GLU	378	32.300	82.505	40.939	1.00	44.33	A	C
ATOM	2837	CD	GLU	378	31.099	83.430	41.148	1.00	49.20	A	C
ATOM	2838	OE1	GLU	378	29.946	82.970	40.972	1.00	51.65	A	O
ATOM	2839	OE2	GLU	378	31.312	84.619	41.489	1.00	50.97	A	O
ATOM	2840	C	GLU	378	34.065	79.975	43.208	1.00	32.75	A	C
ATOM	2841	O	GLU	378	34.582	80.718	44.040	1.00	33.80	A	O

(Continued)

FIG. 4-59

ATOM	2842	N	GLU	379	33.842	78.687	43.436	1.00	31.75	A	N
ATOM	2843	CA	GLU	379	34.192	78.070	44.709	1.00	31.73	A	C
ATOM	2844	CB	GLU	379	33.083	77.141	45.182	1.00	35.37	A	C
ATOM	2845	CG	GLU	379	31.752	77.788	45.416	1.00	40.59	A	C
ATOM	2846	CD	GLU	379	30.678	76.751	45.677	1.00	46.30	A	C
ATOM	2847	OE1	GLU	379	30.363	75.976	44.741	1.00	48.81	A	O
ATOM	2848	OE2	GLU	379	30.159	76.700	46.815	1.00	49.11	A	O
ATOM	2849	C	GLU	379	35.466	77.252	44.589	1.00	30.70	A	C
ATOM	2850	O	GLU	379	35.952	76.712	45.578	1.00	30.56	A	O
ATOM	2851	N	GLY	380	35.986	77.136	43.373	1.00	29.06	A	N
ATOM	2852	CA	GLY	380	37.203	76.377	43.171	1.00	27.19	A	C
ATOM	2853	C	GLY	380	36.979	74.931	42.781	1.00	27.69	A	C
ATOM	2854	O	GLY	380	37.935	74.167	42.662	1.00	27.62	A	O
ATOM	2855	N	TYR	381	35.726	74.540	42.586	1.00	26.46	A	N
ATOM	2856	CA	TYR	381	35.434	73.167	42.191	1.00	26.78	A	C
ATOM	2857	CB	TYR	381	34.175	72.671	42.903	1.00	26.62	A	C
ATOM	2858	CG	TYR	381	34.394	72.448	44.379	1.00	24.99	A	C
ATOM	2859	CD1	TYR	381	34.864	71.225	44.853	1.00	24.93	A	C
ATOM	2860	CE1	TYR	381	35.145	71.035	46.204	1.00	26.71	A	C
ATOM	2861	CD2	TYR	381	34.202	73.486	45.296	1.00	25.27	A	C
ATOM	2862	CE2	TYR	381	34.480	73.312	46.647	1.00	26.88	A	C
ATOM	2863	CZ	TYR	381	34.955	72.082	47.097	1.00	28.08	A	C
ATOM	2864	OH	TYR	381	35.266	71.909	48.429	1.00	28.31	A	O
ATOM	2865	C	TYR	381	35.261	73.100	40.678	1.00	26.94	A	C
ATOM	2866	O	TYR	381	34.542	73.911	40.091	1.00	28.94	A	O
ATOM	2867	N	ARG	382	35.938	72.147	40.045	1.00	24.97	A	N
ATOM	2868	CA	ARG	382	35.855	72.003	38.600	1.00	22.04	A	C
ATOM	2869	CB	ARG	382	37.057	71.211	38.081	1.00	24.10	A	C
ATOM	2870	CG	ARG	382	38.322	72.045	38.110	1.00	24.01	A	C
ATOM	2871	CD	ARG	382	39.606	71.237	38.141	1.00	24.10	A	C
ATOM	2872	NE	ARG	382	40.647	72.083	38.712	1.00	23.35	A	N
ATOM	2873	CZ	ARG	382	41.178	73.132	38.096	1.00	23.31	A	C
ATOM	2874	NH1	ARG	382	40.783	73.449	36.868	1.00	21.52	A	N
ATOM	2875	NH2	ARG	382	42.052	73.907	38.738	1.00	22.46	A	N
ATOM	2876	C	ARG	382	34.548	71.359	38.186	1.00	20.92	A	C
ATOM	2877	O	ARG	382	34.189	70.270	38.645	1.00	18.12	A	O
ATOM	2878	N	HIS	383	33.840	72.068	37.313	1.00	20.45	A	N
ATOM	2879	CA	HIS	383	32.545	71.647	36.813	1.00	20.33	A	C
ATOM	2880	CB	HIS	383	31.440	72.370	37.581	1.00	20.76	A	C
ATOM	2881	CG	HIS	383	31.177	71.797	38.939	1.00	22.34	A	C
ATOM	2882	CD2	HIS	383	31.590	72.189	40.168	1.00	21.75	A	C
ATOM	2883	ND1	HIS	383	30.418	70.661	39.132	1.00	20.42	A	N
ATOM	2884	CE1	HIS	383	30.374	70.380	40.422	1.00	22.91	A	C
ATOM	2885	NE2	HIS	383	31.076	71.291	41.073	1.00	22.25	A	N
ATOM	2886	C	HIS	383	32.404	71.930	35.330	1.00	20.36	A	C
ATOM	2887	O	HIS	383	33.240	72.608	34.728	1.00	19.84	A	O
ATOM	2888	N	ILE	384	31.325	71.420	34.748	1.00	19.26	A	N
ATOM	2889	CA	ILE	384	31.078	71.589	33.329	1.00	17.93	A	C
ATOM	2890	CB	ILE	384	30.232	70.419	32.802	1.00	17.52	A	C

(Continued)

FIG. 4-60

ATOM	2891	CG2	ILE	384	30.005	70.566	31.290	1.00	15.28	A	C
ATOM	2892	CG1	ILE	384	30.928	69.097	33.155	1.00	12.97	A	C
ATOM	2893	CD1	ILE	384	30.093	67.865	32.909	1.00	9.57	A	C
ATOM	2894	C	ILE	384	30.376	72.898	33.028	1.00	19.30	A	C
ATOM	2895	O	ILE	384	29.333	73.198	33.605	1.00	18.50	A	O
ATOM	2896	N	CYS	385	30.950	73.681	32.120	1.00	21.14	A	N
ATOM	2897	CA	CYS	385	30.349	74.953	31.745	1.00	24.26	A	C
ATOM	2898	C	CYS	385	29.932	74.887	30.284	1.00	23.62	A	C
ATOM	2899	O	CYS	385	30.654	74.334	29.464	1.00	23.61	A	O
ATOM	2900	CB	CYS	385	31.344	76.106	31.958	1.00	27.85	A	C
ATOM	2901	SG	CYS	385	30.561	77.640	32.569	1.00	37.75	A	S
ATOM	2902	N	TYR	386	28.760	75.440	29.973	1.00	23.26	A	N
ATOM	2903	CA	TYR	386	28.237	75.470	28.609	1.00	21.88	A	C
ATOM	2904	CB	TYR	386	26.726	75.271	28.612	1.00	21.89	A	C
ATOM	2905	CG	TYR	386	26.120	75.183	27.228	1.00	23.48	A	C
ATOM	2906	CD1	TYR	386	24.912	75.825	26.930	1.00	23.55	A	C
ATOM	2907	CE1	TYR	386	24.323	75.712	25.665	1.00	24.11	A	C
ATOM	2908	CD2	TYR	386	26.728	74.424	26.223	1.00	22.70	A	C
ATOM	2909	CE2	TYR	386	26.144	74.299	24.956	1.00	23.04	A	C
ATOM	2910	CZ	TYR	386	24.943	74.946	24.686	1.00	24.39	A	C
ATOM	2911	OH	TYR	386	24.358	74.823	23.449	1.00	23.13	A	O
ATOM	2912	C	TYR	386	28.549	76.816	27.962	1.00	22.02	A	C
ATOM	2913	O	TYR	386	28.187	77.868	28.493	1.00	22.52	A	O
ATOM	2914	N	PHE	387	29.201	76.775	26.806	1.00	21.19	A	N
ATOM	2915	CA	PHE	387	29.582	77.988	26.080	1.00	19.95	A	C
ATOM	2916	CB	PHE	387	31.087	77.987	25.781	1.00	17.05	A	C
ATOM	2917	CG	PHE	387	31.970	78.222	26.973	1.00	14.01	A	C
ATOM	2918	CD1	PHE	387	32.547	79.469	27.185	1.00	9.81	A	C
ATOM	2919	CD2	PHE	387	32.293	77.178	27.835	1.00	11.20	A	C
ATOM	2920	CE1	PHE	387	33.440	79.672	28.231	1.00	9.80	A	C
ATOM	2921	CE2	PHE	387	33.185	77.376	28.885	1.00	10.91	A	C
ATOM	2922	CZ	PHE	387	33.762	78.626	29.082	1.00	9.32	A	C
ATOM	2923	C	PHE	387	28.888	78.153	24.727	1.00	20.94	A	C
ATOM	2924	O	PHE	387	28.552	77.180	24.055	1.00	19.77	A	O
ATOM	2925	N	GLN	388	28.706	79.406	24.332	1.00	21.79	A	N
ATOM	2926	CA	GLN	388	28.151	79.742	23.030	1.00	22.21	A	C
ATOM	2927	CB	GLN	388	27.024	80.760	23.177	1.00	23.86	A	C
ATOM	2928	CG	GLN	388	25.745	80.343	22.477	1.00	29.81	A	C
ATOM	2929	CD	GLN	388	25.096	79.126	23.109	1.00	32.86	A	C
ATOM	2930	OE1	GLN	388	24.357	78.391	22.452	1.00	34.98	A	O
ATOM	2931	NE2	GLN	388	25.356	78.913	24.395	1.00	36.34	A	N
ATOM	2932	C	GLN	388	29.403	80.382	22.427	1.00	21.72	A	C
ATOM	2933	O	GLN	388	29.845	81.428	22.893	1.00	22.74	A	O
ATOM	2934	N	ILE	389	29.982	79.745	21.415	1.00	20.66	A	N
ATOM	2935	CA	ILE	389	31.231	80.215	20.821	1.00	21.00	A	C
ATOM	2936	CB	ILE	389	31.466	79.617	19.422	1.00	20.76	A	C
ATOM	2937	CG2	ILE	389	31.410	78.100	19.496	1.00	19.50	A	C
ATOM	2938	CG1	ILE	389	30.448	80.165	18.429	1.00	19.48	A	C
ATOM	2939	CD1	ILE	389	30.813	79.864	16.992	1.00	19.12	A	C

(Continued)

FIG. 4-61

ATOM	2940	C	ILE	389	31.483	81.713	20.735	1.00	23.29	A C
ATOM	2941	O	ILE	389	32.640	82.146	20.776	1.00	22.48	A O
ATOM	2942	N	ASP	390	30.423	82.505	20.611	1.00	24.96	A N
ATOM	2943	CA	ASP	390	30.584	83.953	20.533	1.00	26.49	A C
ATOM	2944	CB	ASP	390	29.932	84.508	19.275	1.00	29.09	A C
ATOM	2945	CG	ASP	390	28.467	84.215	19.216	1.00	30.91	A C
ATOM	2946	OD1	ASP	390	27.754	84.955	18.517	1.00	35.45	A O
ATOM	2947	OD2	ASP	390	28.029	83.236	19.858	1.00	33.49	A O
ATOM	2948	C	ASP	390	30.005	84.676	21.738	1.00	26.43	A C
ATOM	2949	O	ASP	390	29.402	85.735	21.603	1.00	26.54	A O
ATOM	2950	N	LYS	391	30.163	84.078	22.910	1.00	27.05	A N
ATOM	2951	CA	LYS	391	29.707	84.679	24.150	1.00	28.81	A C
ATOM	2952	CB	LYS	391	28.348	84.128	24.566	1.00	28.62	A C
ATOM	2953	CG	LYS	391	27.203	84.790	23.824	1.00	31.00	A C
ATOM	2954	CD	LYS	391	25.867	84.228	24.256	1.00	34.06	A C
ATOM	2955	CE	LYS	391	24.733	84.772	23.413	1.00	33.69	A C
ATOM	2956	NZ	LYS	391	23.454	84.073	23.742	1.00	36.51	A N
ATOM	2957	C	LYS	391	30.772	84.369	25.183	1.00	29.11	A C
ATOM	2958	O	LYS	391	31.192	83.223	25.327	1.00	29.45	A O
ATOM	2959	N	LYS	392	31.219	85.401	25.888	1.00	29.66	A N
ATOM	2960	CA	LYS	392	32.281	85.248	26.872	1.00	30.67	A C
ATOM	2961	CB	LYS	392	33.069	86.558	26.985	1.00	28.28	A C
ATOM	2962	CG	LYS	392	33.516	87.119	25.636	1.00	27.07	A C
ATOM	2963	CD	LYS	392	34.330	86.098	24.852	1.00	27.55	A C
ATOM	2964	CE	LYS	392	34.643	86.588	23.449	1.00	26.02	A C
ATOM	2965	NZ	LYS	392	35.369	87.872	23.495	1.00	25.63	A N
ATOM	2966	C	LYS	392	31.824	84.797	28.248	1.00	31.24	A C
ATOM	2967	O	LYS	392	32.637	84.679	29.162	1.00	32.17	A O
ATOM	2968	N	ASP	393	30.531	84.548	28.403	1.00	31.57	A N
ATOM	2969	CA	ASP	393	30.015	84.098	29.690	1.00	33.64	A C
ATOM	2970	CB	ASP	393	29.052	85.134	30.271	1.00	36.88	A C
ATOM	2971	CG	ASP	393	29.734	86.450	30.567	1.00	41.66	A C
ATOM	2972	OD1	ASP	393	30.607	86.475	31.467	1.00	43.84	A O
ATOM	2973	OD2	ASP	393	29.409	87.455	29.895	1.00	44.39	A O
ATOM	2974	C	ASP	393	29.309	82.761	29.546	1.00	32.46	A C
ATOM	2975	O	ASP	393	28.294	82.666	28.859	1.00	32.91	A O
ATOM	2976	N	CYS	394	29.841	81.731	30.198	1.00	30.05	A N
ATOM	2977	CA	CYS	394	29.243	80.410	30.115	1.00	28.94	A C
ATOM	2978	C	CYS	394	28.312	80.116	31.282	1.00	27.56	A C
ATOM	2979	O	CYS	394	28.262	80.858	32.258	1.00	27.11	A O
ATOM	2980	CB	CYS	394	30.336	79.338	30.033	1.00	31.03	A C
ATOM	2981	SG	CYS	394	31.401	79.166	31.504	1.00	34.42	A S
ATOM	2982	N	THR	395	27.570	79.023	31.167	1.00	25.71	A N
ATOM	2983	CA	THR	395	26.645	78.608	32.204	1.00	25.01	A C
ATOM	2984	CB	THR	395	25.208	78.512	31.647	1.00	25.50	A C
ATOM	2985	OG1	THR	395	24.709	79.833	31.407	1.00	28.36	A O
ATOM	2986	CG2	THR	395	24.289	77.779	32.620	1.00	21.52	A C
ATOM	2987	C	THR	395	27.048	77.251	32.772	1.00	24.22	A C
ATOM	2988	O	THR	395	27.196	76.280	32.036	1.00	24.44	A O

(Continued)

FIG. 4-62

ATOM	2989	N	PHE	396	27.231	77.185	34.084	1.00	23.09	A	N
ATOM	2990	CA	PHE	396	27.594	75.924	34.715	1.00	23.03	A	C
ATOM	2991	CB	PHE	396	28.138	76.182	36.116	1.00	22.19	A	C
ATOM	2992	CG	PHE	396	29.581	76.617	36.131	1.00	23.20	A	C
ATOM	2993	CD1	PHE	396	30.604	75.697	35.876	1.00	22.48	A	C
ATOM	2994	CD2	PHE	396	29.924	77.935	36.415	1.00	20.97	A	C
ATOM	2995	CE1	PHE	396	31.949	76.086	35.908	1.00	20.26	A	C
ATOM	2996	CE2	PHE	396	31.267	78.331	36.447	1.00	21.70	A	C
ATOM	2997	CZ	PHE	396	32.279	77.400	36.194	1.00	20.27	A	C
ATOM	2998	C	PHE	396	26.373	75.008	34.764	1.00	20.96	A	C
ATOM	2999	O	PHE	396	25.311	75.412	35.218	1.00	20.96	A	O
ATOM	3000	N	ILE	397	26.523	73.779	34.279	1.00	18.88	A	N
ATOM	3001	CA	ILE	397	25.412	72.842	34.262	1.00	18.00	A	C
ATOM	3002	CB	ILE	397	25.266	72.165	32.879	1.00	16.55	A	C
ATOM	3003	CG2	ILE	397	25.350	73.209	31.787	1.00	13.63	A	C
ATOM	3004	CG1	ILE	397	26.366	71.130	32.669	1.00	16.02	A	C
ATOM	3005	CD1	ILE	397	26.180	70.327	31.402	1.00	17.85	A	C
ATOM	3006	C	ILE	397	25.527	71.770	35.338	1.00	19.16	A	C
ATOM	3007	O	ILE	397	24.787	70.787	35.330	1.00	20.44	A	O
ATOM	3008	N	THR	398	26.480	71.956	36.244	1.00	18.55	A	N
ATOM	3009	CA	THR	398	26.681	71.051	37.367	1.00	19.41	A	C
ATOM	3010	CB	THR	398	27.624	69.858	37.051	1.00	19.56	A	C
ATOM	3011	OG1	THR	398	28.978	70.321	36.960	1.00	22.60	A	O
ATOM	3012	CG2	THR	398	27.221	69.178	35.759	1.00	18.50	A	C
ATOM	3013	C	THR	398	27.343	71.899	38.424	1.00	20.24	A	C
ATOM	3014	O	THR	398	27.979	72.903	38.104	1.00	20.11	A	O
ATOM	3015	N	LYS	399	27.185	71.511	39.681	1.00	22.48	A	N
ATOM	3016	CA	LYS	399	27.795	72.258	40.772	1.00	23.72	A	C
ATOM	3017	CB	LYS	399	27.111	73.618	40.941	1.00	24.42	A	C
ATOM	3018	CG	LYS	399	25.689	73.583	41.462	1.00	27.65	A	C
ATOM	3019	CD	LYS	399	25.269	74.996	41.856	1.00	30.77	A	C
ATOM	3020	CE	LYS	399	23.861	75.054	42.414	1.00	31.89	A	C
ATOM	3021	NZ	LYS	399	22.841	74.747	41.377	1.00	35.03	A	N
ATOM	3022	C	LYS	399	27.751	71.476	42.077	1.00	22.46	A	C
ATOM	3023	O	LYS	399	27.125	70.425	42.154	1.00	21.96	A	O
ATOM	3024	N	GLY	400	28.435	71.989	43.093	1.00	21.98	A	N
ATOM	3025	CA	GLY	400	28.463	71.319	44.378	1.00	22.66	A	C
ATOM	3026	C	GLY	400	29.891	71.115	44.839	1.00	24.94	A	C
ATOM	3027	O	GLY	400	30.831	71.449	44.118	1.00	26.10	A	O
ATOM	3028	N	THR	401	30.064	70.566	46.036	1.00	25.34	A	N
ATOM	3029	CA	THR	401	31.400	70.335	46.560	1.00	26.41	A	C
ATOM	3030	CB	THR	401	31.443	70.541	48.095	1.00	27.75	A	C
ATOM	3031	OG1	THR	401	30.615	69.567	48.741	1.00	31.37	A	O
ATOM	3032	CG2	THR	401	30.924	71.927	48.448	1.00	27.06	A	C
ATOM	3033	C	THR	401	31.923	68.945	46.197	1.00	24.83	A	C
ATOM	3034	O	THR	401	32.027	68.049	47.036	1.00	26.74	A	O
ATOM	3035	N	TRP	402	32.229	68.790	44.915	1.00	22.03	A	N
ATOM	3036	CA	TRP	402	32.781	67.569	44.340	1.00	18.83	A	C
ATOM	3037	CB	TRP	402	31.741	66.460	44.268	1.00	16.39	A	C

(Continued)

FIG. 4-63

ATOM	3038	CG	TRP	402	30.434	66.886	43.709	1.00	17.90	A	C
ATOM	3039	CD2	TRP	402	30.037	66.865	42.332	1.00	19.16	A	C
ATOM	3040	CE2	TRP	402	28.701	67.320	42.278	1.00	20.21	A	C
ATOM	3041	CE3	TRP	402	30.679	66.505	41.137	1.00	18.78	A	C
ATOM	3042	CD1	TRP	402	29.364	67.345	44.409	1.00	17.97	A	C
ATOM	3043	NE1	TRP	402	28.318	67.605	43.562	1.00	20.57	A	N
ATOM	3044	CZ2	TRP	402	27.989	67.425	41.078	1.00	18.32	A	C
ATOM	3045	CZ3	TRP	402	29.972	66.608	39.943	1.00	19.71	A	C
ATOM	3046	CH2	TRP	402	28.637	67.064	39.924	1.00	18.98	A	C
ATOM	3047	C	TRP	402	33.208	67.983	42.944	1.00	18.09	A	C
ATOM	3048	O	TRP	402	32.956	69.117	42.540	1.00	18.12	A	O
ATOM	3049	N	GLU	403	33.831	67.089	42.191	1.00	17.78	A	N
ATOM	3050	CA	GLU	403	34.284	67.484	40.866	1.00	19.48	A	C
ATOM	3051	CB	GLU	403	35.776	67.805	40.926	1.00	20.26	A	C
ATOM	3052	CG	GLU	403	36.122	68.824	41.983	1.00	21.69	A	C
ATOM	3053	CD	GLU	403	37.433	69.522	41.721	1.00	23.95	A	C
ATOM	3054	OE1	GLU	403	37.506	70.728	42.020	1.00	25.27	A	O
ATOM	3055	OE2	GLU	403	38.384	68.880	41.223	1.00	24.57	A	O
ATOM	3056	C	GLU	403	34.028	66.516	39.716	1.00	19.74	A	C
ATOM	3057	O	GLU	403	33.891	65.305	39.916	1.00	20.05	A	O
ATOM	3058	N	VAL	404	33.957	67.073	38.508	1.00	18.47	A	N
ATOM	3059	CA	VAL	404	33.760	66.273	37.305	1.00	17.63	A	C
ATOM	3060	CB	VAL	404	33.070	67.073	36.165	1.00	14.78	A	C
ATOM	3061	CG1	VAL	404	32.974	66.210	34.914	1.00	11.14	A	C
ATOM	3062	CG2	VAL	404	31.683	67.515	36.595	1.00	12.13	A	C
ATOM	3063	C	VAL	404	35.153	65.875	36.836	1.00	18.38	A	C
ATOM	3064	O	VAL	404	35.986	66.732	36.567	1.00	20.01	A	O
ATOM	3065	N	ILE	405	35.410	64.579	36.764	1.00	18.83	A	N
ATOM	3066	CA	ILE	405	36.707	64.088	36.323	1.00	20.05	A	C
ATOM	3067	CB	ILE	405	36.868	62.593	36.653	1.00	21.78	A	C
ATOM	3068	CG2	ILE	405	38.254	62.123	36.283	1.00	16.28	A	C
ATOM	3069	CG1	ILE	405	36.591	62.364	38.146	1.00	24.51	A	C
ATOM	3070	CD1	ILE	405	37.438	63.218	39.079	1.00	26.24	A	C
ATOM	3071	C	ILE	405	36.858	64.290	34.817	1.00	19.94	A	C
ATOM	3072	O	ILE	405	37.912	64.710	34.345	1.00	20.67	A	O
ATOM	3073	N	GLY	406	35.803	63.990	34.064	1.00	19.40	A	N
ATOM	3074	CA	GLY	406	35.869	64.171	32.627	1.00	16.85	A	C
ATOM	3075	C	GLY	406	34.566	63.983	31.881	1.00	16.78	A	C
ATOM	3076	O	GLY	406	33.679	63.268	32.330	1.00	17.43	A	O
ATOM	3077	N	ILE	407	34.459	64.652	30.736	1.00	17.49	A	N
ATOM	3078	CA	ILE	407	33.303	64.569	29.852	1.00	16.98	A	C
ATOM	3079	CB	ILE	407	33.173	65.861	28.998	1.00	16.67	A	C
ATOM	3080	CG2	ILE	407	32.157	65.671	27.874	1.00	16.93	A	C
ATOM	3081	CG1	ILE	407	32.779	67.036	29.895	1.00	16.45	A	C
ATOM	3082	CD1	ILE	407	32.646	68.357	29.157	1.00	11.65	A	C
ATOM	3083	C	ILE	407	33.611	63.392	28.934	1.00	18.17	A	C
ATOM	3084	O	ILE	407	34.599	63.421	28.212	1.00	18.89	A	O
ATOM	3085	N	GLU	408	32.766	62.367	28.945	1.00	20.84	A	N
ATOM	3086	CA	GLU	408	33.000	61.176	28.122	1.00	22.31	A	C

(Continued)

FIG. 4-64

ATOM	3087	CB	GLU	408	32.691	59.922	28.944	1.00	21.64	A	C
ATOM	3088	CG	GLU	408	33.457	59.860	30.254	1.00	23.48	A	C
ATOM	3089	CD	GLU	408	34.963	59.947	30.048	1.00	26.15	A	C
ATOM	3090	OE1	GLU	408	35.519	59.081	29.337	1.00	28.40	A	O
ATOM	3091	OE2	GLU	408	35.594	60.877	30.596	1.00	25.87	A	O
ATOM	3092	C	GLU	408	32.262	61.097	26.780	1.00	22.35	A	C
ATOM	3093	O	GLU	408	32.743	60.455	25.846	1.00	23.83	A	O
ATOM	3094	N	ALA	409	31.100	61.729	26.671	1.00	22.21	A	N
ATOM	3095	CA	ALA	409	30.356	61.685	25.414	1.00	20.74	A	C
ATOM	3096	CB	ALA	409	29.797	60.294	25.180	1.00	21.17	A	C
ATOM	3097	C	ALA	409	29.235	62.708	25.386	1.00	20.05	A	C
ATOM	3098	O	ALA	409	28.651	63.041	26.413	1.00	19.39	A	O
ATOM	3099	N	LEU	410	28.937	63.201	24.195	1.00	19.25	A	N
ATOM	3100	CA	LEU	410	27.911	64.207	24.038	1.00	19.28	A	C
ATOM	3101	CB	LEU	410	28.559	65.571	23.796	1.00	19.29	A	C
ATOM	3102	CG	LEU	410	27.634	66.778	23.617	1.00	20.83	A	C
ATOM	3103	CD1	LEU	410	26.959	67.089	24.935	1.00	20.92	A	C
ATOM	3104	CD2	LEU	410	28.434	67.987	23.134	1.00	20.28	A	C
ATOM	3105	C	LEU	410	26.998	63.874	22.879	1.00	20.25	A	C
ATOM	3106	O	LEU	410	27.453	63.649	21.758	1.00	20.84	A	O
ATOM	3107	N	THR	411	25.701	63.834	23.150	1.00	19.86	A	N
ATOM	3108	CA	THR	411	24.741	63.561	22.100	1.00	18.40	A	C
ATOM	3109	CB	THR	411	23.902	62.339	22.418	1.00	15.82	A	C
ATOM	3110	OG1	THR	411	23.017	62.649	23.498	1.00	15.79	A	O
ATOM	3111	CG2	THR	411	24.797	61.177	22.811	1.00	14.12	A	C
ATOM	3112	C	THR	411	23.846	64.787	22.050	1.00	20.16	A	C
ATOM	3113	O	THR	411	23.971	65.684	22.882	1.00	21.79	A	O
ATOM	3114	N	SER	412	22.952	64.836	21.074	1.00	20.25	A	N
ATOM	3115	CA	SER	412	22.061	65.972	20.945	1.00	21.09	A	C
ATOM	3116	CB	SER	412	21.206	65.827	19.687	1.00	22.27	A	C
ATOM	3117	OG	SER	412	20.474	64.618	19.721	1.00	25.03	A	O
ATOM	3118	C	SER	412	21.158	66.118	22.153	1.00	21.84	A	C
ATOM	3119	O	SER	412	20.598	67.185	22.379	1.00	22.97	A	O
ATOM	3120	N	ASP	413	21.015	65.054	22.934	1.00	22.56	A	N
ATOM	3121	CA	ASP	413	20.138	65.104	24.097	1.00	24.36	A	C
ATOM	3122	CB	ASP	413	19.036	64.047	23.975	1.00	26.84	A	C
ATOM	3123	CG	ASP	413	18.161	64.243	22.751	1.00	30.28	A	C
ATOM	3124	OD1	ASP	413	17.153	63.515	22.635	1.00	32.47	A	O
ATOM	3125	OD2	ASP	413	18.474	65.111	21.904	1.00	31.81	A	O
ATOM	3126	C	ASP	413	20.822	64.918	25.442	1.00	24.37	A	C
ATOM	3127	O	ASP	413	20.306	65.363	26.470	1.00	25.08	A	O
ATOM	3128	N	TYR	414	21.974	64.259	25.444	1.00	24.23	A	N
ATOM	3129	CA	TYR	414	22.672	63.998	26.694	1.00	23.03	A	C
ATOM	3130	CB	TYR	414	22.369	62.572	27.155	1.00	23.61	A	C
ATOM	3131	CG	TYR	414	20.925	62.332	27.520	1.00	25.79	A	C
ATOM	3132	CD1	TYR	414	20.402	62.822	28.714	1.00	26.31	A	C
ATOM	3133	CE1	TYR	414	19.071	62.621	29.052	1.00	26.99	A	C
ATOM	3134	CD2	TYR	414	20.074	61.629	26.666	1.00	24.67	A	C
ATOM	3135	CE2	TYR	414	18.740	61.424	26.993	1.00	25.53	A	C

(Continued)

FIG. 4-65

ATOM	3136	CZ	TYR	414	18.246	61.923	28.188	1.00	28.30	A	C
ATOM	3137	OH	TYR	414	16.925	61.731	28.531	1.00	31.69	A	O
ATOM	3138	C	TYR	414	24.180	64.174	26.639	1.00	22.81	A	C
ATOM	3139	O	TYR	414	24.811	64.040	25.582	1.00	22.74	A	O
ATOM	3140	N	LEU	415	24.741	64.469	27.809	1.00	20.51	A	N
ATOM	3141	CA	LEU	415	26.174	64.630	27.996	1.00	18.28	A	C
ATOM	3142	CB	LEU	415	26.502	66.079	28.358	1.00	16.58	A	C
ATOM	3143	CG	LEU	415	27.945	66.406	28.745	1.00	14.79	A	C
ATOM	3144	CD1	LEU	415	28.184	67.892	28.606	1.00	13.01	A	C
ATOM	3145	CD2	LEU	415	28.208	65.943	30.163	1.00	14.04	A	C
ATOM	3146	C	LEU	415	26.518	63.684	29.149	1.00	18.57	A	C
ATOM	3147	O	LEU	415	25.926	63.763	30.230	1.00	18.31	A	O
ATOM	3148	N	TYR	416	27.449	62.769	28.909	1.00	19.11	A	N
ATOM	3149	CA	TYR	416	27.843	61.796	29.924	1.00	19.69	A	C
ATOM	3150	CB	TYR	416	27.963	60.407	29.309	1.00	18.66	A	C
ATOM	3151	CG	TYR	416	26.698	59.926	28.645	1.00	17.78	A	C
ATOM	3152	CD1	TYR	416	26.297	60.438	27.410	1.00	16.67	A	C
ATOM	3153	CE1	TYR	416	25.137	59.971	26.786	1.00	18.58	A	C
ATOM	3154	CD2	TYR	416	25.908	58.944	29.245	1.00	16.22	A	C
ATOM	3155	CE2	TYR	416	24.754	58.475	28.636	1.00	16.35	A	C
ATOM	3156	CZ	TYR	416	24.374	58.986	27.406	1.00	18.54	A	C
ATOM	3157	OH	TYR	416	23.252	58.489	26.784	1.00	19.53	A	O
ATOM	3158	C	TYR	416	29.167	62.178	30.540	1.00	20.71	A	C
ATOM	3159	O	TYR	416	30.117	62.499	29.822	1.00	22.92	A	O
ATOM	3160	N	TYR	417	29.238	62.138	31.866	1.00	19.27	A	N
ATOM	3161	CA	TYR	417	30.472	62.506	32.544	1.00	19.08	A	C
ATOM	3162	CB	TYR	417	30.408	63.981	32.970	1.00	18.38	A	C
ATOM	3163	CG	TYR	417	29.383	64.282	34.049	1.00	17.93	A	C
ATOM	3164	CD1	TYR	417	29.721	64.213	35.399	1.00	15.25	A	C
ATOM	3165	CE1	TYR	417	28.784	64.476	36.391	1.00	13.14	A	C
ATOM	3166	CD2	TYR	417	28.071	64.622	33.718	1.00	17.72	A	C
ATOM	3167	CE2	TYR	417	27.120	64.885	34.710	1.00	15.27	A	C
ATOM	3168	CZ	TYR	417	27.488	64.808	36.040	1.00	14.25	A	C
ATOM	3169	OH	TYR	417	26.556	65.046	37.020	1.00	14.06	A	O
ATOM	3170	C	TYR	417	30.768	61.615	33.747	1.00	18.77	A	C
ATOM	3171	O	TYR	417	29.918	60.853	34.207	1.00	18.74	A	O
ATOM	3172	N	ILE	418	31.996	61.706	34.236	1.00	17.63	A	N
ATOM	3173	CA	ILE	418	32.429	60.926	35.379	1.00	16.60	A	C
ATOM	3174	CB	ILE	418	33.626	60.019	35.015	1.00	15.54	A	C
ATOM	3175	CG2	ILE	418	34.482	59.737	36.241	1.00	14.33	A	C
ATOM	3176	CG1	ILE	418	33.107	58.729	34.378	1.00	15.75	A	C
ATOM	3177	CD1	ILE	418	34.183	57.767	33.964	1.00	15.48	A	C
ATOM	3178	C	ILE	418	32.827	61.909	36.453	1.00	18.54	A	C
ATOM	3179	O	ILE	418	33.535	62.875	36.190	1.00	20.83	A	O
ATOM	3180	N	SER	419	32.356	61.671	37.664	1.00	19.59	A	N
ATOM	3181	CA	SER	419	32.670	62.556	38.764	1.00	20.34	A	C
ATOM	3182	CB	SER	419	31.523	63.526	38.996	1.00	21.79	A	C
ATOM	3183	OG	SER	419	30.415	62.843	39.562	1.00	24.33	A	O
ATOM	3184	C	SER	419	32.875	61.732	40.013	1.00	20.37	A	C

(Continued)

FIG. 4-66

ATOM	3185	O	SER	419	32.783	60.503	39.988	1.00	20.32	A	O
ATOM	3186	N	ASN	420	33.152	62.427	41.107	1.00	19.64	A	N
ATOM	3187	CA	ASN	420	33.357	61.786	42.387	1.00	20.07	A	C
ATOM	3188	CB	ASN	420	34.773	62.053	42.863	1.00	18.49	A	C
ATOM	3189	CG	ASN	420	35.099	63.518	42.872	1.00	20.69	A	C
ATOM	3190	OD1	ASN	420	34.210	64.358	42.741	1.00	21.49	A	O
ATOM	3191	ND2	ASN	420	36.376	63.844	43.034	1.00	21.39	A	N
ATOM	3192	C	ASN	420	32.350	62.368	43.379	1.00	20.90	A	C
ATOM	3193	O	ASN	420	32.677	62.610	44.535	1.00	21.17	A	O
ATOM	3194	N	GLU	421	31.127	62.600	42.914	1.00	21.68	A	N
ATOM	3195	CA	GLU	421	30.081	63.160	43.761	1.00	24.26	A	C
ATOM	3196	CB	GLU	421	28.935	63.722	42.901	1.00	26.18	A	C
ATOM	3197	CG	GLU	421	27.714	64.214	43.701	1.00	25.32	A	C
ATOM	3198	CD	GLU	421	26.604	64.817	42.824	1.00	26.09	A	C
ATOM	3199	OE1	GLU	421	25.563	65.237	43.373	1.00	24.11	A	O
ATOM	3200	OE2	GLU	421	26.762	64.873	41.588	1.00	27.22	A	O
ATOM	3201	C	GLU	421	29.512	62.133	44.729	1.00	24.93	A	C
ATOM	3202	O	GLU	421	29.185	62.457	45.868	1.00	27.30	A	O
ATOM	3203	N	TYR	422	29.409	60.892	44.272	1.00	23.63	A	N
ATOM	3204	CA	TYR	422	28.837	59.826	45.075	1.00	23.67	A	C
ATOM	3205	CB	TYR	422	28.942	58.503	44.311	1.00	23.61	A	C
ATOM	3206	CG	TYR	422	28.015	57.415	44.813	1.00	24.39	A	C
ATOM	3207	CD1	TYR	422	26.642	57.637	44.936	1.00	23.87	A	C
ATOM	3208	CE1	TYR	422	25.781	56.618	45.347	1.00	22.11	A	C
ATOM	3209	CD2	TYR	422	28.505	56.147	45.120	1.00	24.53	A	C
ATOM	3210	CE2	TYR	422	27.654	55.124	45.533	1.00	23.32	A	C
ATOM	3211	CZ	TYR	422	26.300	55.367	45.641	1.00	23.52	A	C
ATOM	3212	OH	TYR	422	25.471	54.349	46.031	1.00	24.33	A	O
ATOM	3213	C	TYR	422	29.399	59.679	46.493	1.00	23.57	A	C
ATOM	3214	O	TYR	422	30.599	59.478	46.704	1.00	23.17	A	O
ATOM	3215	N	LYS	423	28.492	59.784	47.461	1.00	23.07	A	N
ATOM	3216	CA	LYS	423	28.813	59.661	48.878	1.00	22.04	A	C
ATOM	3217	CB	LYS	423	29.156	58.205	49.205	1.00	24.22	A	C
ATOM	3218	CG	LYS	423	27.967	57.266	49.009	1.00	25.11	A	C
ATOM	3219	CD	LYS	423	28.303	55.809	49.276	1.00	26.55	A	C
ATOM	3220	CE	LYS	423	27.079	54.930	49.002	1.00	28.11	A	C
ATOM	3221	NZ	LYS	423	27.302	53.498	49.336	1.00	27.79	A	N
ATOM	3222	C	LYS	423	29.923	60.583	49.347	1.00	21.46	A	C
ATOM	3223	O	LYS	423	30.533	60.340	50.385	1.00	20.97	A	O
ATOM	3224	N	GLY	424	30.167	61.647	48.583	1.00	21.39	A	N
ATOM	3225	CA	GLY	424	31.201	62.608	48.930	1.00	21.20	A	C
ATOM	3226	C	GLY	424	32.606	62.034	48.961	1.00	21.98	A	C
ATOM	3227	O	GLY	424	33.463	62.534	49.687	1.00	22.19	A	O
ATOM	3228	N	MET	425	32.848	60.991	48.173	1.00	22.44	A	N
ATOM	3229	CA	MET	425	34.161	60.350	48.134	1.00	23.29	A	C
ATOM	3230	CB	MET	425	34.003	58.826	48.056	1.00	24.14	A	C
ATOM	3231	CG	MET	425	33.548	58.187	49.360	1.00	25.32	A	C
ATOM	3232	SD	MET	425	33.092	56.451	49.179	1.00	29.39	A	S
ATOM	3233	CE	MET	425	34.663	55.611	49.406	1.00	27.92	A	C

(Continued)

FIG. 4-67

ATOM	3234	C	MET	425	35.042	60.827	46.986	1.00	22.06	A C
ATOM	3235	O	MET	425	34.836	60.457	45.835	1.00	22.61	A O
ATOM	3236	N	PRO	426	36.045	61.661	47.292	1.00	21.75	A N
ATOM	3237	CD	PRO	426	36.386	62.215	48.615	1.00	21.34	A C
ATOM	3238	CA	PRO	426	36.951	62.172	46.262	1.00	20.07	A C
ATOM	3239	CB	PRO	426	37.943	63.007	47.062	1.00	20.22	A C
ATOM	3240	CG	PRO	426	37.138	63.461	48.245	1.00	19.61	A C
ATOM	3241	C	PRO	426	37.636	61.019	45.532	1.00	20.63	A C
ATOM	3242	O	PRO	426	37.920	61.107	44.343	1.00	23.99	A O
ATOM	3243	N	GLY	427	37.905	59.936	46.252	1.00	19.08	A N
ATOM	3244	CA	GLY	427	38.552	58.789	45.646	1.00	18.03	A C
ATOM	3245	C	GLY	427	37.601	57.838	44.941	1.00	18.93	A C
ATOM	3246	O	GLY	427	37.965	56.706	44.642	1.00	21.55	A O
ATOM	3247	N	GLY	428	36.378	58.285	44.684	1.00	18.22	A N
ATOM	3248	CA	GLY	428	35.417	57.446	43.991	1.00	17.96	A C
ATOM	3249	C	GLY	428	35.208	57.970	42.583	1.00	18.15	A C
ATOM	3250	O	GLY	428	35.577	59.108	42.289	1.00	19.00	A O
ATOM	3251	N	ARG	429	34.619	57.158	41.712	1.00	16.78	A N
ATOM	3252	CA	ARG	429	34.389	57.559	40.320	1.00	17.38	A C
ATOM	3253	CB	ARG	429	35.595	57.167	39.444	1.00	19.09	A C
ATOM	3254	CG	ARG	429	36.577	58.292	39.108	1.00	20.57	A C
ATOM	3255	CD	ARG	429	37.385	58.737	40.302	1.00	22.65	A C
ATOM	3256	NE	ARG	429	38.359	59.769	39.956	1.00	25.75	A N
ATOM	3257	CZ	ARG	429	39.078	60.445	40.852	1.00	26.83	A C
ATOM	3258	NH1	ARG	429	38.927	60.204	42.146	1.00	26.78	A N
ATOM	3259	NH2	ARG	429	39.957	61.356	40.456	1.00	26.24	A N
ATOM	3260	C	ARG	429	33.134	56.889	39.756	1.00	15.74	A C
ATOM	3261	O	ARG	429	32.976	55.675	39.857	1.00	12.14	A O
ATOM	3262	N	ASN	430	32.256	57.679	39.146	1.00	14.98	A N
ATOM	3263	CA	ASN	430	31.027	57.136	38.586	1.00	17.41	A C
ATOM	3264	CB	ASN	430	29.901	57.216	39.622	1.00	17.29	A C
ATOM	3265	CG	ASN	430	29.947	56.081	40.620	1.00	18.53	A C
ATOM	3266	OD1	ASN	430	29.607	54.938	40.297	1.00	16.68	A O
ATOM	3267	ND2	ASN	430	30.381	56.386	41.840	1.00	15.65	A N
ATOM	3268	C	ASN	430	30.564	57.808	37.297	1.00	17.98	A C
ATOM	3269	O	ASN	430	30.849	58.976	37.043	1.00	19.64	A O
ATOM	3270	N	LEU	431	29.840	57.053	36.485	1.00	17.00	A N
ATOM	3271	CA	LEU	431	29.314	57.576	35.241	1.00	17.70	A C
ATOM	3272	CB	LEU	431	29.122	56.442	34.231	1.00	15.35	A C
ATOM	3273	CG	LEU	431	28.478	56.867	32.913	1.00	15.33	A C
ATOM	3274	CD1	LEU	431	29.340	57.917	32.230	1.00	13.77	A C
ATOM	3275	CD2	LEU	431	28.296	55.645	32.018	1.00	17.37	A C
ATOM	3276	C	LEU	431	27.978	58.279	35.491	1.00	19.03	A C
ATOM	3277	O	LEU	431	27.095	57.750	36.172	1.00	17.62	A O
ATOM	3278	N	TYR	432	27.840	59.475	34.933	1.00	20.33	A N
ATOM	3279	CA	TYR	432	26.620	60.248	35.083	1.00	21.23	A C
ATOM	3280	CB	TYR	432	26.848	61.442	36.014	1.00	22.85	A C
ATOM	3281	CG	TYR	432	27.068	61.070	37.464	1.00	25.34	A C
ATOM	3282	CD1	TYR	432	28.320	60.646	37.921	1.00	24.87	A C

(Continued)

FIG. 4-68

ATOM	3283	CE1	TYR	432	28.519	60.305	39.267	1.00	24.97	A	C
ATOM	3284	CD2	TYR	432	26.019	61.142	38.384	1.00	24.85	A	C
ATOM	3285	CE2	TYR	432	26.205	60.805	39.723	1.00	25.31	A	C
ATOM	3286	CZ	TYR	432	27.454	60.388	40.161	1.00	25.88	A	C
ATOM	3287	OH	TYR	432	27.625	60.054	41.487	1.00	25.59	A	O
ATOM	3288	C	TYR	432	26.102	60.743	33.737	1.00	21.26	A	C
ATOM	3289	O	TYR	432	26.860	60.870	32.770	1.00	21.07	A	O
ATOM	3290	N	LYS	433	24.802	61.022	33.695	1.00	20.78	A	N
ATOM	3291	CA	LYS	433	24.133	61.505	32.496	1.00	20.98	A	C
ATOM	3292	CB	LYS	433	23.290	60.386	31.876	1.00	21.14	A	C
ATOM	3293	CG	LYS	433	22.564	60.827	30.618	1.00	25.64	A	C
ATOM	3294	CD	LYS	433	21.843	59.701	29.907	1.00	25.30	A	C
ATOM	3295	CE	LYS	433	20.643	59.235	30.682	1.00	25.25	A	C
ATOM	3296	NZ	LYS	433	19.801	58.370	29.817	1.00	27.99	A	N
ATOM	3297	C	LYS	433	23.228	62.687	32.835	1.00	20.46	A	C
ATOM	3298	O	LYS	433	22.367	62.587	33.707	1.00	21.41	A	O
ATOM	3299	N	ILE	434	23.427	63.812	32.162	1.00	20.15	A	N
ATOM	3300	CA	ILE	434	22.591	64.980	32.417	1.00	21.18	A	C
ATOM	3301	CB	ILE	434	23.427	66.225	32.815	1.00	21.51	A	C
ATOM	3302	CG2	ILE	434	24.412	66.582	31.715	1.00	22.39	A	C
ATOM	3303	CG1	ILE	434	22.491	67.404	33.083	1.00	22.04	A	C
ATOM	3304	CD1	ILE	434	23.171	68.591	33.699	1.00	23.38	A	C
ATOM	3305	C	ILE	434	21.782	65.297	31.174	1.00	20.81	A	C
ATOM	3306	O	ILE	434	22.274	65.154	30.056	1.00	21.15	A	O
ATOM	3307	N	GLN	435	20.538	65.716	31.372	1.00	21.40	A	N
ATOM	3308	CA	GLN	435	19.666	66.034	30.248	1.00	23.73	A	C
ATOM	3309	CB	GLN	435	18.202	65.851	30.646	1.00	26.08	A	C
ATOM	3310	CG	GLN	435	17.227	66.030	29.496	1.00	29.99	A	C
ATOM	3311	CD	GLN	435	15.802	65.806	29.929	1.00	32.10	A	C
ATOM	3312	OE1	GLN	435	15.446	64.720	30.372	1.00	34.41	A	O
ATOM	3313	NE2	GLN	435	14.978	66.839	29.819	1.00	34.05	A	N
ATOM	3314	C	GLN	435	19.891	67.450	29.743	1.00	22.81	A	C
ATOM	3315	O	GLN	435	19.600	68.419	30.434	1.00	22.20	A	O
ATOM	3316	N	LEU	436	20.401	67.564	28.524	1.00	23.57	A	N
ATOM	3317	CA	LEU	436	20.679	68.865	27.951	1.00	24.55	A	C
ATOM	3318	CB	LEU	436	21.152	68.714	26.508	1.00	21.18	A	C
ATOM	3319	CG	LEU	436	22.456	67.939	26.332	1.00	21.36	A	C
ATOM	3320	CD1	LEU	436	22.938	68.116	24.910	1.00	20.02	A	C
ATOM	3321	CD2	LEU	436	23.510	68.437	27.317	1.00	19.70	A	C
ATOM	3322	C	LEU	436	19.491	69.812	28.020	1.00	26.85	A	C
ATOM	3323	O	LEU	436	19.672	71.016	28.168	1.00	28.66	A	O
ATOM	3324	N	SER	437	18.280	69.268	27.927	1.00	30.22	A	N
ATOM	3325	CA	SER	437	17.059	70.075	27.977	1.00	32.38	A	C
ATOM	3326	CB	SER	437	15.925	69.340	27.268	1.00	32.98	A	C
ATOM	3327	OG	SER	437	16.241	69.151	25.901	1.00	39.22	A	O
ATOM	3328	C	SER	437	16.610	70.437	29.394	1.00	33.81	A	C
ATOM	3329	O	SER	437	15.805	71.352	29.577	1.00	32.20	A	O
ATOM	3330	N	ASP	438	17.124	69.714	30.387	1.00	35.36	A	N
ATOM	3331	CA	ASP	438	16.772	69.955	31.784	1.00	36.00	A	C

(Continued)

FIG. 4-69

ATOM	3332	CB	ASP	438	15.468	69.226	32.123	1.00	38.49	A	C
ATOM	3333	CG	ASP	438	14.996	69.498	33.543	1.00	41.58	A	C
ATOM	3334	OD1	ASP	438	15.820	69.415	34.480	1.00	43.35	A	O
ATOM	3335	OD2	ASP	438	13.796	69.785	33.725	1.00	43.71	A	O
ATOM	3336	C	ASP	438	17.904	69.470	32.700	1.00	35.28	A	C
ATOM	3337	O	ASP	438	18.019	68.274	32.993	1.00	33.70	A	O
ATOM	3338	N	TYR	439	18.723	70.412	33.158	1.00	34.27	A	N
ATOM	3339	CA	TYR	439	19.862	70.105	34.013	1.00	33.69	A	C
ATOM	3340	CB	TYR	439	20.740	71.343	34.175	1.00	32.29	A	C
ATOM	3341	CG	TYR	439	21.262	71.886	32.867	1.00	30.75	A	C
ATOM	3342	CD1	TYR	439	21.565	71.028	31.810	1.00	30.00	A	C
ATOM	3343	CE1	TYR	439	22.071	71.516	30.611	1.00	28.65	A	C
ATOM	3344	CD2	TYR	439	21.480	73.253	32.691	1.00	28.95	A	C
ATOM	3345	CE2	TYR	439	21.987	73.749	31.496	1.00	27.97	A	C
ATOM	3346	CZ	TYR	439	22.281	72.875	30.462	1.00	27.72	A	C
ATOM	3347	OH	TYR	439	22.803	73.350	29.284	1.00	28.72	A	O
ATOM	3348	C	TYR	439	19.543	69.538	35.390	1.00	33.65	A	C
ATOM	3349	O	TYR	439	20.435	69.045	36.076	1.00	33.49	A	O
ATOM	3350	N	THR	440	18.285	69.612	35.806	1.00	34.13	A	N
ATOM	3351	CA	THR	440	17.917	69.076	37.115	1.00	34.14	A	C
ATOM	3352	CB	THR	440	16.561	69.624	37.609	1.00	33.49	A	C
ATOM	3353	OG1	THR	440	15.507	69.114	36.780	1.00	32.29	A	O
ATOM	3354	CG2	THR	440	16.559	71.144	37.571	1.00	30.29	A	C
ATOM	3355	C	THR	440	17.794	67.572	36.953	1.00	33.89	A	C
ATOM	3356	O	THR	440	17.684	66.829	37.929	1.00	35.16	A	O
ATOM	3357	N	LYS	441	17.808	67.141	35.697	1.00	32.21	A	N
ATOM	3358	CA	LYS	441	17.703	65.735	35.362	1.00	30.32	A	C
ATOM	3359	CB	LYS	441	16.871	65.573	34.088	1.00	33.16	A	C
ATOM	3360	CG	LYS	441	15.369	65.490	34.331	1.00	36.13	A	C
ATOM	3361	CD	LYS	441	14.848	66.671	35.122	1.00	39.11	A	C
ATOM	3362	CE	LYS	441	13.447	66.392	35.649	1.00	41.94	A	C
ATOM	3363	NZ	LYS	441	12.953	67.501	36.517	1.00	44.46	A	N
ATOM	3364	C	LYS	441	19.089	65.119	35.179	1.00	28.77	A	C
ATOM	3365	O	LYS	441	19.668	65.159	34.088	1.00	28.32	A	O
ATOM	3366	N	VAL	442	19.618	64.564	36.263	1.00	25.14	A	N
ATOM	3367	CA	VAL	442	20.922	63.929	36.243	1.00	24.37	A	C
ATOM	3368	CB	VAL	442	21.960	64.717	37.091	1.00	24.82	A	C
ATOM	3369	CG1	VAL	442	23.266	63.936	37.178	1.00	22.99	A	C
ATOM	3370	CG2	VAL	442	22.216	66.084	36.469	1.00	23.65	A	C
ATOM	3371	C	VAL	442	20.786	62.525	36.807	1.00	24.10	A	C
ATOM	3372	O	VAL	442	20.327	62.341	37.931	1.00	22.60	A	O
ATOM	3373	N	THR	443	21.189	61.539	36.014	1.00	23.16	A	N
ATOM	3374	CA	THR	443	21.109	60.149	36.419	1.00	22.78	A	C
ATOM	3375	CB	THR	443	20.352	59.306	35.375	1.00	23.02	A	C
ATOM	3376	OG1	THR	443	19.017	59.802	35.222	1.00	27.68	A	O
ATOM	3377	CG2	THR	443	20.301	57.862	35.800	1.00	22.12	A	C
ATOM	3378	C	THR	443	22.493	59.548	36.551	1.00	23.54	A	C
ATOM	3379	O	THR	443	23.367	59.792	35.721	1.00	23.36	A	O
ATOM	3380	N	CYS	444	22.701	58.761	37.596	1.00	23.18	A	N

(Continued)

FIG. 4-70

ATOM	3381	CA	CYS	444	23.981	58.104	37.747	1.00	24.13	A C
ATOM	3382	C	CYS	444	23.758	56.712	37.157	1.00	22.91	A C
ATOM	3383	O	CYS	444	22.855	55.990	37.573	1.00	21.72	A O
ATOM	3384	CB	CYS	444	24.396	58.018	39.219	1.00	25.50	A C
ATOM	3385	SG	CYS	444	26.053	57.282	39.443	1.00	30.81	A S
ATOM	3386	N	LEU	445	24.573	56.348	36.175	1.00	22.64	A N
ATOM	3387	CA	LEU	445	24.446	55.053	35.513	1.00	22.51	A C
ATOM	3388	CB	LEU	445	24.799	55.211	34.035	1.00	19.29	A C
ATOM	3389	CG	LEU	445	24.049	56.349	33.341	1.00	19.36	A C
ATOM	3390	CD1	LEU	445	24.588	56.552	31.934	1.00	16.01	A C
ATOM	3391	CD2	LEU	445	22.559	56.034	33.319	1.00	15.72	A C
ATOM	3392	C	LEU	445	25.308	53.940	36.118	1.00	23.32	A C
ATOM	3393	O	LEU	445	25.203	52.783	35.718	1.00	24.58	A O
ATOM	3394	N	SER	446	26.148	54.274	37.087	1.00	23.95	A N
ATOM	3395	CA	SER	446	27.028	53.269	37.660	1.00	23.89	A C
ATOM	3396	CB	SER	446	28.469	53.555	37.222	1.00	21.87	A C
ATOM	3397	OG	SER	446	28.882	54.847	37.648	1.00	20.09	A O
ATOM	3398	C	SER	446	26.969	53.145	39.175	1.00	23.77	A C
ATOM	3399	O	SER	446	27.361	52.119	39.720	1.00	24.69	A O
ATOM	3400	N	CYS	447	26.480	54.184	39.845	1.00	24.32	A N
ATOM	3401	CA	CYS	447	26.382	54.207	41.309	1.00	26.45	A C
ATOM	3402	C	CYS	447	25.836	52.946	41.997	1.00	25.99	A C
ATOM	3403	O	CYS	447	26.441	52.425	42.937	1.00	24.44	A O
ATOM	3404	CB	CYS	447	25.518	55.396	41.763	1.00	27.33	A C
ATOM	3405	SG	CYS	447	26.225	57.049	41.461	1.00	34.75	A S
ATOM	3406	N	GLU	448	24.696	52.456	41.528	1.00	25.90	A N
ATOM	3407	CA	GLU	448	24.056	51.317	42.167	1.00	24.38	A C
ATOM	3408	CB	GLU	448	22.581	51.637	42.334	1.00	23.47	A C
ATOM	3409	CG	GLU	448	22.332	53.075	42.721	1.00	24.60	A C
ATOM	3410	CD	GLU	448	22.848	53.416	44.108	1.00	27.44	A C
ATOM	3411	OE1	GLU	448	22.617	54.562	44.559	1.00	29.17	A O
ATOM	3412	OE2	GLU	448	23.478	52.548	44.751	1.00	28.81	A O
ATOM	3413	C	GLU	448	24.201	49.941	41.537	1.00	23.54	A C
ATOM	3414	O	GLU	448	23.722	48.970	42.104	1.00	22.25	A O
ATOM	3415	N	LEU	449	24.844	49.844	40.377	1.00	23.78	A N
ATOM	3416	CA	LEU	449	25.024	48.547	39.717	1.00	23.34	A C
ATOM	3417	CB	LEU	449	25.988	48.678	38.548	1.00	20.76	A C
ATOM	3418	CG	LEU	449	25.680	49.712	37.472	1.00	21.20	A C
ATOM	3419	CD1	LEU	449	26.872	49.807	36.543	1.00	20.05	A C
ATOM	3420	CD2	LEU	449	24.424	49.335	36.711	1.00	17.29	A C
ATOM	3421	C	LEU	449	25.551	47.456	40.654	1.00	24.61	A C
ATOM	3422	O	LEU	449	25.157	46.298	40.549	1.00	26.01	A O
ATOM	3423	N	ASN	450	26.445	47.830	41.562	1.00	25.89	A N
ATOM	3424	CA	ASN	450	27.040	46.889	42.512	1.00	27.02	A C
ATOM	3425	CB	ASN	450	27.939	45.913	41.754	1.00	27.92	A C
ATOM	3426	CG	ASN	450	28.296	44.695	42.572	1.00	31.61	A C
ATOM	3427	OD1	ASN	450	28.521	44.786	43.783	1.00	34.65	A O
ATOM	3428	ND2	ASN	450	28.363	43.541	41.912	1.00	31.27	A N
ATOM	3429	C	ASN	450	27.877	47.731	43.488	1.00	26.54	A C

(Continued)

FIG. 4-71

ATOM	3430	O	ASN	450	29.099	47.637	43.523	1.00	26.25	A	O
ATOM	3431	N	PRO	451	27.210	48.558	44.303	1.00	27.04	A	N
ATOM	3432	CD	PRO	451	25.762	48.411	44.535	1.00	27.72	A	C
ATOM	3433	CA	PRO	451	27.796	49.465	45.296	1.00	27.49	A	C
ATOM	3434	CB	PRO	451	26.579	49.924	46.103	1.00	27.21	A	C
ATOM	3435	CG	PRO	451	25.638	48.765	45.989	1.00	25.73	A	C
ATOM	3436	C	PRO	451	28.938	48.983	46.187	1.00	28.75	A	C
ATOM	3437	O	PRO	451	29.877	49.737	46.433	1.00	30.69	A	O
ATOM	3438	N	GLU	452	28.873	47.746	46.666	1.00	29.54	A	N
ATOM	3439	CA	GLU	452	29.918	47.228	47.545	1.00	30.30	A	C
ATOM	3440	CB	GLU	452	29.453	45.937	48.232	1.00	33.99	A	C
ATOM	3441	CG	GLU	452	28.085	46.024	48.890	1.00	39.92	A	C
ATOM	3442	CD	GLU	452	27.817	44.848	49.813	1.00	45.87	A	C
ATOM	3443	OE1	GLU	452	28.084	43.693	49.402	1.00	47.97	A	O
ATOM	3444	OE2	GLU	452	27.336	45.076	50.948	1.00	47.68	A	O
ATOM	3445	C	GLU	452	31.221	46.946	46.816	1.00	29.63	A	C
ATOM	3446	O	GLU	452	32.308	47.199	47.344	1.00	30.27	A	O
ATOM	3447	N	ARG	453	31.099	46.425	45.600	1.00	27.01	A	N
ATOM	3448	CA	ARG	453	32.244	46.057	44.783	1.00	24.90	A	C
ATOM	3449	CB	ARG	453	31.950	44.728	44.085	1.00	23.08	A	C
ATOM	3450	CG	ARG	453	32.952	44.337	43.018	1.00	22.92	A	C
ATOM	3451	CD	ARG	453	32.602	42.995	42.381	1.00	20.49	A	C
ATOM	3452	NE	ARG	453	33.504	42.688	41.278	1.00	18.31	A	N
ATOM	3453	CZ	ARG	453	33.439	41.595	40.531	1.00	18.93	A	C
ATOM	3454	NH1	ARG	453	32.510	40.679	40.763	1.00	19.77	A	N
ATOM	3455	NH2	ARG	453	34.302	41.425	39.539	1.00	18.87	A	N
ATOM	3456	C	ARG	453	32.695	47.071	43.738	1.00	25.72	A	C
ATOM	3457	O	ARG	453	33.809	46.962	43.222	1.00	24.32	A	O
ATOM	3458	N	CYS	454	31.857	48.054	43.420	1.00	25.94	A	N
ATOM	3459	CA	CYS	454	32.233	49.012	42.385	1.00	25.49	A	C
ATOM	3460	C	CYS	454	32.038	50.473	42.699	1.00	24.24	A	C
ATOM	3461	O	CYS	454	30.922	50.970	42.688	1.00	26.79	A	O
ATOM	3462	CB	CYS	454	31.503	48.664	41.096	1.00	26.13	A	C
ATOM	3463	SG	CYS	454	32.156	47.128	40.401	1.00	30.12	A	S
ATOM	3464	N	GLN	455	33.143	51.165	42.942	1.00	22.97	A	N
ATOM	3465	CA	GLN	455	33.105	52.576	43.276	1.00	23.69	A	C
ATOM	3466	CB	GLN	455	33.536	52.761	44.736	1.00	23.41	A	C
ATOM	3467	CG	GLN	455	32.564	52.187	45.761	1.00	24.96	A	C
ATOM	3468	CD	GLN	455	33.177	52.065	47.150	1.00	29.34	A	C
ATOM	3469	OE1	GLN	455	33.981	52.907	47.574	1.00	30.98	A	O
ATOM	3470	NE2	GLN	455	32.790	51.022	47.872	1.00	28.59	A	N
ATOM	3471	C	GLN	455	33.992	53.425	42.360	1.00	24.57	A	C
ATOM	3472	O	GLN	455	33.837	54.645	42.294	1.00	27.40	A	O
ATOM	3473	N	TYR	456	34.919	52.787	41.654	1.00	22.57	A	N
ATOM	3474	CA	TYR	456	35.821	53.510	40.763	1.00	21.75	A	C
ATOM	3475	CB	TYR	456	37.270	53.187	41.124	1.00	20.47	A	C
ATOM	3476	CG	TYR	456	38.267	54.282	40.817	1.00	21.27	A	C
ATOM	3477	CD1	TYR	456	38.659	55.193	41.808	1.00	20.27	A	C
ATOM	3478	CE1	TYR	456	39.618	56.165	41.548	1.00	18.67	A	C

(Continued)

FIG. 4-72

ATOM	3479	CD2	TYR	456	38.858	54.385	39.552	1.00	19.29	A	C
ATOM	3480	CE2	TYR	456	39.812	55.353	39.284	1.00	16.18	A	C
ATOM	3481	CZ	TYR	456	40.190	56.236	40.283	1.00	18.92	A	C
ATOM	3482	OH	TYR	456	41.151	57.183	40.023	1.00	19.64	A	O
ATOM	3483	C	TYR	456	35.536	53.061	39.335	1.00	21.96	A	C
ATOM	3484	O	TYR	456	35.944	51.972	38.931	1.00	22.39	A	O
ATOM	3485	N	TYR	457	34.846	53.899	38.567	1.00	22.09	A	N
ATOM	3486	CA	TYR	457	34.499	53.540	37.196	1.00	20.82	A	C
ATOM	3487	CB	TYR	457	33.001	53.717	36.956	1.00	17.91	A	C
ATOM	3488	CG	TYR	457	32.147	52.613	37.512	1.00	15.58	A	C
ATOM	3489	CD1	TYR	457	31.644	52.674	38.811	1.00	13.21	A	C
ATOM	3490	CE1	TYR	457	30.830	51.668	39.311	1.00	12.43	A	C
ATOM	3491	CD2	TYR	457	31.819	51.512	36.727	1.00	16.86	A	C
ATOM	3492	CE2	TYR	457	31.008	50.497	37.219	1.00	15.29	A	C
ATOM	3493	CZ	TYR	457	30.518	50.582	38.507	1.00	14.49	A	C
ATOM	3494	OH	TYR	457	29.728	49.568	38.985	1.00	15.62	A	O
ATOM	3495	C	TYR	457	35.232	54.240	36.066	1.00	21.27	A	C
ATOM	3496	O	TYR	457	35.842	55.293	36.227	1.00	23.18	A	O
ATOM	3497	N	SER	458	35.132	53.622	34.901	1.00	21.68	A	N
ATOM	3498	CA	SER	458	35.739	54.108	33.683	1.00	21.74	A	C
ATOM	3499	CB	SER	458	37.083	53.429	33.474	1.00	23.93	A	C
ATOM	3500	OG	SER	458	37.510	53.569	32.141	1.00	29.63	A	O
ATOM	3501	C	SER	458	34.751	53.664	32.621	1.00	21.73	A	C
ATOM	3502	O	SER	458	34.072	52.652	32.804	1.00	20.08	A	O
ATOM	3503	N	VAL	459	34.665	54.405	31.520	1.00	20.58	A	N
ATOM	3504	CA	VAL	459	33.722	54.061	30.468	1.00	19.99	A	C
ATOM	3505	CB	VAL	459	32.457	54.949	30.568	1.00	19.45	A	C
ATOM	3506	CG1	VAL	459	32.816	56.392	30.308	1.00	19.10	A	C
ATOM	3507	CG2	VAL	459	31.397	54.475	29.595	1.00	20.30	A	C
ATOM	3508	C	VAL	459	34.309	54.161	29.059	1.00	19.99	A	C
ATOM	3509	O	VAL	459	35.314	54.835	28.831	1.00	21.13	A	O
ATOM	3510	N	SER	460	33.667	53.472	28.122	1.00	18.73	A	N
ATOM	3511	CA	SER	460	34.083	53.456	26.728	1.00	16.25	A	C
ATOM	3512	CB	SER	460	34.970	52.230	26.476	1.00	16.33	A	C
ATOM	3513	OG	SER	460	35.476	52.194	25.151	1.00	15.85	A	O
ATOM	3514	C	SER	460	32.809	53.377	25.883	1.00	15.70	A	C
ATOM	3515	O	SER	460	32.156	52.342	25.841	1.00	14.81	A	O
ATOM	3516	N	PHE	461	32.450	54.475	25.226	1.00	16.00	A	N
ATOM	3517	CA	PHE	461	31.245	54.512	24.398	1.00	16.27	A	C
ATOM	3518	CB	PHE	461	30.636	55.921	24.367	1.00	15.50	A	C
ATOM	3519	CG	PHE	461	30.001	56.351	25.660	1.00	15.11	A	C
ATOM	3520	CD1	PHE	461	30.779	56.764	26.735	1.00	14.16	A	C
ATOM	3521	CD2	PHE	461	28.617	56.340	25.804	1.00	14.86	A	C
ATOM	3522	CE1	PHE	461	30.190	57.158	27.931	1.00	12.94	A	C
ATOM	3523	CE2	PHE	461	28.021	56.733	26.996	1.00	12.76	A	C
ATOM	3524	CZ	PHE	461	28.811	57.142	28.061	1.00	11.01	A	C
ATOM	3525	C	PHE	461	31.551	54.102	22.971	1.00	17.94	A	C
ATOM	3526	O	PHE	461	32.686	54.234	22.514	1.00	17.07	A	O
ATOM	3527	N	SER	462	30.532	53.612	22.269	1.00	19.22	A	N

(Continued)

FIG. 4-73

ATOM	3528	CA	SER	462	30.694	53.212	20.877	1.00	23.70	A	C
ATOM	3529	CB	SER	462	29.494	52.381	20.399	1.00	23.50	A	C
ATOM	3530	OG	SER	462	28.308	53.145	20.397	1.00	24.06	A	O
ATOM	3531	C	SER	462	30.804	54.496	20.058	1.00	24.95	A	C
ATOM	3532	O	SER	462	30.572	55.581	20.577	1.00	25.95	A	O
ATOM	3533	N	LYS	463	31.153	54.373	18.784	1.00	27.50	A	N
ATOM	3534	CA	LYS	463	31.323	55.536	17.920	1.00	31.80	A	C
ATOM	3535	CB	LYS	463	31.587	55.084	16.484	1.00	33.43	A	C
ATOM	3536	CG	LYS	463	33.047	55.199	16.075	1.00	35.54	A	C
ATOM	3537	CD	LYS	463	33.972	54.435	17.007	1.00	36.78	A	C
ATOM	3538	CE	LYS	463	35.433	54.724	16.673	1.00	39.20	A	C
ATOM	3539	NZ	LYS	463	36.384	54.098	17.641	1.00	40.26	A	N
ATOM	3540	C	LYS	463	30.226	56.602	17.934	1.00	33.39	A	C
ATOM	3541	O	LYS	463	30.484	57.745	17.561	1.00	36.36	A	O
ATOM	3542	N	GLU	464	29.015	56.254	18.354	1.00	33.23	A	N
ATOM	3543	CA	GLU	464	27.945	57.247	18.410	1.00	34.54	A	C
ATOM	3544	CB	GLU	464	26.960	57.058	17.256	1.00	39.82	A	C
ATOM	3545	CG	GLU	464	27.528	57.366	15.882	1.00	44.96	A	C
ATOM	3546	CD	GLU	464	26.578	56.961	14.772	1.00	48.72	A	C
ATOM	3547	OE1	GLU	464	25.439	57.480	14.752	1.00	50.39	A	O
ATOM	3548	OE2	GLU	464	26.967	56.120	13.926	1.00	50.59	A	O
ATOM	3549	C	GLU	464	27.186	57.202	19.729	1.00	32.77	A	C
ATOM	3550	O	GLU	464	26.047	57.659	19.814	1.00	32.03	A	O
ATOM	3551	N	ALA	465	27.823	56.636	20.748	1.00	31.17	A	N
ATOM	3552	CA	ALA	465	27.241	56.546	22.081	1.00	29.63	A	C
ATOM	3553	CB	ALA	465	26.889	57.935	22.577	1.00	28.36	A	C
ATOM	3554	C	ALA	465	26.015	55.645	22.164	1.00	29.47	A	C
ATOM	3555	O	ALA	465	25.176	55.824	23.042	1.00	28.66	A	O
ATOM	3556	N	LYS	466	25.905	54.678	21.259	1.00	28.89	A	N
ATOM	3557	CA	LYS	466	24.763	53.772	21.274	1.00	28.97	A	C
ATOM	3558	CB	LYS	466	24.585	53.122	19.899	1.00	30.98	A	C
ATOM	3559	CG	LYS	466	23.208	52.509	19.649	1.00	31.77	A	C
ATOM	3560	CD	LYS	466	23.045	52.179	18.171	1.00	34.52	A	C
ATOM	3561	CE	LYS	466	21.632	51.757	17.814	1.00	35.82	A	C
ATOM	3562	NZ	LYS	466	21.273	50.441	18.404	1.00	38.42	A	N
ATOM	3563	C	LYS	466	24.987	52.704	22.339	1.00	28.20	A	C
ATOM	3564	O	LYS	466	24.040	52.126	22.869	1.00	27.93	A	O
ATOM	3565	N	TYR	467	26.252	52.446	22.646	1.00	26.93	A	N
ATOM	3566	CA	TYR	467	26.599	51.458	23.654	1.00	26.21	A	C
ATOM	3567	CB	TYR	467	26.955	50.119	23.003	1.00	27.94	A	C
ATOM	3568	CG	TYR	467	25.823	49.502	22.207	1.00	30.39	A	C
ATOM	3569	CD1	TYR	467	25.550	49.917	20.903	1.00	29.93	A	C
ATOM	3570	CE1	TYR	467	24.494	49.373	20.184	1.00	31.13	A	C
ATOM	3571	CD2	TYR	467	25.009	48.522	22.768	1.00	29.73	A	C
ATOM	3572	CE2	TYR	467	23.953	47.975	22.060	1.00	30.29	A	C
ATOM	3573	CZ	TYR	467	23.698	48.405	20.770	1.00	30.97	A	C
ATOM	3574	OH	TYR	467	22.625	47.890	20.079	1.00	32.01	A	O
ATOM	3575	C	TYR	467	27.777	51.949	24.470	1.00	24.00	A	C
ATOM	3576	O	TYR	467	28.491	52.852	24.064	1.00	24.63	A	O

(Continued)

FIG. 4-74

ATOM	3577	N	TYR	468	27.969	51.370	25.641	1.00	23.06	A	N
ATOM	3578	CA	TYR	468	29.091	51.765	26.462	1.00	22.80	A	C
ATOM	3579	CB	TYR	468	28.801	53.043	27.249	1.00	23.88	A	C
ATOM	3580	CG	TYR	468	27.588	53.011	28.155	1.00	24.49	A	C
ATOM	3581	CD1	TYR	468	26.308	53.214	27.646	1.00	23.81	A	C
ATOM	3582	CE1	TYR	468	25.206	53.308	28.486	1.00	25.51	A	C
ATOM	3583	CD2	TYR	468	27.734	52.883	29.537	1.00	26.39	A	C
ATOM	3584	CE2	TYR	468	26.638	52.971	30.390	1.00	25.67	A	C
ATOM	3585	CZ	TYR	468	25.380	53.191	29.857	1.00	25.81	A	C
ATOM	3586	OH	TYR	468	24.304	53.334	30.695	1.00	25.95	A	O
ATOM	3587	C	TYR	468	29.501	50.675	27.411	1.00	21.32	A	C
ATOM	3588	O	TYR	468	28.672	50.059	28.070	1.00	22.73	A	O
ATOM	3589	N	GLN	469	30.800	50.431	27.449	1.00	20.26	A	N
ATOM	3590	CA	GLN	469	31.368	49.429	28.315	1.00	19.27	A	C
ATOM	3591	CB	GLN	469	32.643	48.864	27.695	1.00	20.12	A	C
ATOM	3592	CG	GLN	469	33.460	47.993	28.632	1.00	21.72	A	C
ATOM	3593	CD	GLN	469	34.891	47.845	28.169	1.00	23.85	A	C
ATOM	3594	OE1	GLN	469	35.605	48.837	28.011	1.00	25.81	A	O
ATOM	3595	NE2	GLN	469	35.322	46.609	27.948	1.00	23.84	A	N
ATOM	3596	C	GLN	469	31.712	50.158	29.589	1.00	19.50	A	C
ATOM	3597	O	GLN	469	32.331	51.226	29.549	1.00	19.63	A	O
ATOM	3598	N	LEU	470	31.277	49.611	30.716	1.00	19.27	A	N
ATOM	3599	CA	LEU	470	31.602	50.203	32.002	1.00	20.27	A	C
ATOM	3600	CB	LEU	470	30.410	50.136	32.961	1.00	20.14	A	C
ATOM	3601	CG	LEU	470	29.442	51.323	32.929	1.00	21.50	A	C
ATOM	3602	CD1	LEU	470	28.373	51.132	33.996	1.00	19.33	A	C
ATOM	3603	CD2	LEU	470	30.200	52.620	33.184	1.00	19.44	A	C
ATOM	3604	C	LEU	470	32.768	49.380	32.531	1.00	20.91	A	C
ATOM	3605	O	LEU	470	32.785	48.152	32.409	1.00	19.97	A	O
ATOM	3606	N	ARG	471	33.753	50.050	33.102	1.00	22.57	A	N
ATOM	3607	CA	ARG	471	34.917	49.344	33.610	1.00	25.83	A	C
ATOM	3608	CB	ARG	471	36.137	49.690	32.748	1.00	29.78	A	C
ATOM	3609	CG	ARG	471	35.927	49.386	31.261	1.00	31.73	A	C
ATOM	3610	CD	ARG	471	37.091	49.871	30.426	1.00	35.14	A	C
ATOM	3611	NE	ARG	471	36.939	51.261	30.005	1.00	35.86	A	N
ATOM	3612	CZ	ARG	471	37.961	52.061	29.723	1.00	35.39	A	C
ATOM	3613	NH1	ARG	471	39.202	51.606	29.830	1.00	37.87	A	N
ATOM	3614	NH2	ARG	471	37.747	53.304	29.321	1.00	36.33	A	N
ATOM	3615	C	ARG	471	35.171	49.686	35.064	1.00	24.89	A	C
ATOM	3616	O	ARG	471	35.685	50.750	35.388	1.00	27.07	A	O
ATOM	3617	N	CYS	472	34.794	48.766	35.935	1.00	24.59	A	N
ATOM	3618	CA	CYS	472	34.948	48.925	37.373	1.00	25.55	A	C
ATOM	3619	C	CYS	472	36.328	48.418	37.806	1.00	23.33	A	C
ATOM	3620	O	CYS	472	36.738	47.319	37.433	1.00	22.34	A	O
ATOM	3621	CB	CYS	472	33.812	48.150	38.059	1.00	26.66	A	C
ATOM	3622	SG	CYS	472	34.037	47.670	39.797	1.00	33.06	A	S
ATOM	3623	N	SER	473	37.049	49.219	38.583	1.00	22.51	A	N
ATOM	3624	CA	SER	473	38.377	48.809	39.022	1.00	23.17	A	C
ATOM	3625	CB	SER	473	39.446	49.724	38.414	1.00	21.92	A	C

(Continued)

FIG. 4-75

ATOM	3626	OG	SER	473	39.500	50.976	39.071	1.00	23.39	A	O
ATOM	3627	C	SER	473	38.557	48.754	40.536	1.00	23.29	A	C
ATOM	3628	O	SER	473	39.685	48.758	41.028	1.00	24.44	A	O
ATOM	3629	N	GLY	474	37.457	48.697	41.279	1.00	23.29	A	N
ATOM	3630	CA	GLY	474	37.573	48.627	42.724	1.00	23.91	A	C
ATOM	3631	C	GLY	474	36.330	49.075	43.459	1.00	24.41	A	C
ATOM	3632	O	GLY	474	35.434	49.658	42.849	1.00	25.28	A	O
ATOM	3633	N	PRO	475	36.257	48.850	44.780	1.00	24.58	A	N
ATOM	3634	CD	PRO	475	35.174	49.389	45.623	1.00	25.74	A	C
ATOM	3635	CA	PRO	475	37.280	48.206	45.609	1.00	24.00	A	C
ATOM	3636	CB	PRO	475	36.887	48.620	47.022	1.00	22.53	A	C
ATOM	3637	CG	PRO	475	35.419	48.692	46.945	1.00	25.59	A	C
ATOM	3638	C	PRO	475	37.397	46.692	45.462	1.00	24.86	A	C
ATOM	3639	O	PRO	475	38.294	46.081	46.044	1.00	26.60	A	O
ATOM	3640	N	GLY	476	36.502	46.085	44.691	1.00	24.35	A	N
ATOM	3641	CA	GLY	476	36.564	44.646	44.498	1.00	23.50	A	C
ATOM	3642	C	GLY	476	37.324	44.316	43.227	1.00	24.87	A	C
ATOM	3643	O	GLY	476	37.925	45.198	42.613	1.00	24.65	A	O
ATOM	3644	N	LEU	477	37.308	43.054	42.818	1.00	24.78	A	N
ATOM	3645	CA	LEU	477	38.003	42.681	41.601	1.00	25.85	A	C
ATOM	3646	CB	LEU	477	37.927	41.171	41.383	1.00	26.86	A	C
ATOM	3647	CG	LEU	477	38.661	40.296	42.404	1.00	27.45	A	C
ATOM	3648	CD1	LEU	477	38.626	38.851	41.943	1.00	27.65	A	C
ATOM	3649	CD2	LEU	477	40.102	40.759	42.556	1.00	27.87	A	C
ATOM	3650	C	LEU	477	37.369	43.417	40.424	1.00	27.45	A	C
ATOM	3651	O	LEU	477	36.160	43.663	40.405	1.00	27.68	A	O
ATOM	3652	N	PRO	478	38.183	43.792	39.428	1.00	27.18	A	N
ATOM	3653	CD	PRO	478	39.645	43.637	39.362	1.00	27.65	A	C
ATOM	3654	CA	PRO	478	37.684	44.505	38.253	1.00	25.83	A	C
ATOM	3655	CB	PRO	478	38.908	44.569	37.351	1.00	27.68	A	C
ATOM	3656	CG	PRO	478	40.023	44.676	38.335	1.00	27.43	A	C
ATOM	3657	C	PRO	478	36.509	43.806	37.591	1.00	24.68	A	C
ATOM	3658	O	PRO	478	36.464	42.583	37.506	1.00	23.74	A	O
ATOM	3659	N	LEU	479	35.561	44.600	37.116	1.00	24.02	A	N
ATOM	3660	CA	LEU	479	34.376	44.068	36.465	1.00	23.10	A	C
ATOM	3661	CB	LEU	479	33.186	44.151	37.420	1.00	21.62	A	C
ATOM	3662	CG	LEU	479	31.845	43.702	36.854	1.00	21.11	A	C
ATOM	3663	CD1	LEU	479	31.915	42.245	36.430	1.00	21.98	A	C
ATOM	3664	CD2	LEU	479	30.778	43.901	37.912	1.00	24.17	A	C
ATOM	3665	C	LEU	479	34.077	44.857	35.199	1.00	22.18	A	C
ATOM	3666	O	LEU	479	33.942	46.073	35.244	1.00	22.27	A	O
ATOM	3667	N	TYR	480	33.978	44.160	34.073	1.00	22.51	A	N
ATOM	3668	CA	TYR	480	33.690	44.801	32.790	1.00	22.76	A	C
ATOM	3669	CB	TYR	480	34.709	44.353	31.749	1.00	22.59	A	C
ATOM	3670	CG	TYR	480	36.123	44.657	32.147	1.00	21.95	A	C
ATOM	3671	CD1	TYR	480	36.702	45.885	31.843	1.00	22.81	A	C
ATOM	3672	CE1	TYR	480	37.999	46.190	32.249	1.00	23.84	A	C
ATOM	3673	CD2	TYR	480	36.872	43.733	32.870	1.00	22.05	A	C
ATOM	3674	CE2	TYR	480	38.165	44.027	33.286	1.00	23.52	A	C

(Continued)

FIG. 4-76

ATOM	3675	CZ	TYR	480	38.722	45.257	32.971	1.00	24.29	A	C
ATOM	3676	OH	TYR	480	39.998	45.556	33.379	1.00	26.37	A	O
ATOM	3677	C	TYR	480	32.291	44.422	32.326	1.00	23.22	A	C
ATOM	3678	O	TYR	480	31.964	43.239	32.243	1.00	23.21	A	O
ATOM	3679	N	THR	481	31.472	45.425	32.017	1.00	23.50	A	N
ATOM	3680	CA	THR	481	30.101	45.181	31.577	1.00	22.82	A	C
ATOM	3681	CB	THR	481	29.097	45.513	32.702	1.00	22.81	A	C
ATOM	3682	OG1	THR	481	29.190	46.905	33.024	1.00	23.28	A	O
ATOM	3683	CG2	THR	481	29.398	44.699	33.951	1.00	21.29	A	C
ATOM	3684	C	THR	481	29.740	46.015	30.351	1.00	23.25	A	C
ATOM	3685	O	THR	481	30.298	47.091	30.136	1.00	24.47	A	O
ATOM	3686	N	LEU	482	28.809	45.512	29.547	1.00	23.21	A	N
ATOM	3687	CA	LEU	482	28.368	46.219	28.350	1.00	23.54	A	C
ATOM	3688	CB	LEU	482	28.310	45.268	27.155	1.00	22.93	A	C
ATOM	3689	CG	LEU	482	28.216	45.922	25.773	1.00	23.14	A	C
ATOM	3690	CD1	LEU	482	29.483	46.721	25.507	1.00	23.20	A	C
ATOM	3691	CD2	LEU	482	28.043	44.861	24.699	1.00	22.53	A	C
ATOM	3692	C	LEU	482	26.981	46.767	28.643	1.00	23.83	A	C
ATOM	3693	O	LEU	482	26.254	46.207	29.458	1.00	25.57	A	O
ATOM	3694	N	HIS	483	26.610	47.861	27.994	1.00	22.84	A	N
ATOM	3695	CA	HIS	483	25.301	48.459	28.231	1.00	22.49	A	C
ATOM	3696	CB	HIS	483	25.420	49.528	29.321	1.00	22.16	A	C
ATOM	3697	CG	HIS	483	26.003	49.025	30.604	1.00	24.44	A	C
ATOM	3698	CD2	HIS	483	27.289	48.904	31.012	1.00	25.98	A	C
ATOM	3699	ND1	HIS	483	25.228	48.567	31.648	1.00	25.15	A	N
ATOM	3700	CE1	HIS	483	26.011	48.189	32.644	1.00	23.97	A	C
ATOM	3701	NE2	HIS	483	27.266	48.382	32.283	1.00	22.74	A	N
ATOM	3702	C	HIS	483	24.764	49.097	26.950	1.00	22.46	A	C
ATOM	3703	O	HIS	483	25.507	49.281	25.987	1.00	24.72	A	O
ATOM	3704	N	SER	484	23.475	49.427	26.932	1.00	20.23	A	N
ATOM	3705	CA	SER	484	22.890	50.078	25.768	1.00	19.27	A	C
ATOM	3706	CB	SER	484	21.789	49.216	25.164	1.00	19.99	A	C
ATOM	3707	OG	SER	484	20.721	49.057	26.068	1.00	26.06	A	O
ATOM	3708	C	SER	484	22.335	51.427	26.213	1.00	19.12	A	C
ATOM	3709	O	SER	484	21.656	51.521	27.232	1.00	19.17	A	O
ATOM	3710	N	SER	485	22.628	52.470	25.445	1.00	19.29	A	N
ATOM	3711	CA	SER	485	22.198	53.823	25.783	1.00	20.52	A	C
ATOM	3712	CB	SER	485	23.025	54.841	25.000	1.00	20.72	A	C
ATOM	3713	OG	SER	485	24.386	54.769	25.379	1.00	23.68	A	O
ATOM	3714	C	SER	485	20.727	54.160	25.604	1.00	20.05	A	C
ATOM	3715	O	SER	485	20.208	55.040	26.287	1.00	18.92	A	O
ATOM	3716	N	VAL	486	20.055	53.477	24.688	1.00	20.23	A	N
ATOM	3717	CA	VAL	486	18.653	53.764	24.444	1.00	19.23	A	C
ATOM	3718	CB	VAL	486	18.058	52.816	23.380	1.00	19.24	A	C
ATOM	3719	CG1	VAL	486	18.099	51.383	23.869	1.00	19.40	A	C
ATOM	3720	CG2	VAL	486	16.635	53.223	23.070	1.00	20.10	A	C
ATOM	3721	C	VAL	486	17.817	53.655	25.705	1.00	19.72	A	C
ATOM	3722	O	VAL	486	16.869	54.415	25.887	1.00	20.98	A	O
ATOM	3723	N	ASN	487	18.190	52.727	26.581	1.00	20.80	A	N

(Continued)

FIG. 4-77

ATOM	3724	CA	ASN	487	17.458	52.464	27.824	1.00	20.70	A	C
ATOM	3725	CB	ASN	487	16.587	51.229	27.620	1.00	18.89	A	C
ATOM	3726	CG	ASN	487	17.403	50.007	27.171	1.00	22.56	A	C
ATOM	3727	OD1	ASN	487	16.853	48.948	26.864	1.00	24.29	A	O
ATOM	3728	ND2	ASN	487	18.722	50.158	27.132	1.00	20.73	A	N
ATOM	3729	C	ASN	487	18.354	52.220	29.047	1.00	22.59	A	C
ATOM	3730	O	ASN	487	17.865	51.758	30.079	1.00	22.43	A	O
ATOM	3731	N	ASP	488	19.650	52.514	28.929	1.00	23.24	A	N
ATOM	3732	CA	ASP	488	20.606	52.290	30.015	1.00	23.32	A	C
ATOM	3733	CB	ASP	488	20.415	53.304	31.148	1.00	24.08	A	C
ATOM	3734	CG	ASP	488	20.780	54.718	30.750	1.00	24.71	A	C
ATOM	3735	OD1	ASP	488	21.933	54.956	30.345	1.00	25.68	A	O
ATOM	3736	OD2	ASP	488	19.907	55.601	30.862	1.00	26.77	A	O
ATOM	3737	C	ASP	488	20.488	50.883	30.608	1.00	24.38	A	C
ATOM	3738	O	ASP	488	20.709	50.689	31.803	1.00	24.38	A	O
ATOM	3739	N	LYS	489	20.127	49.902	29.791	1.00	24.63	A	N
ATOM	3740	CA	LYS	489	20.009	48.541	30.300	1.00	25.48	A	C
ATOM	3741	CB	LYS	489	18.837	47.817	29.630	1.00	25.85	A	C
ATOM	3742	CG	LYS	489	17.651	47.594	30.579	1.00	28.57	A	C
ATOM	3743	CD	LYS	489	17.247	48.906	31.251	1.00	30.67	A	C
ATOM	3744	CE	LYS	489	16.346	48.695	32.453	1.00	29.68	A	C
ATOM	3745	NZ	LYS	489	16.283	49.944	33.278	1.00	30.13	A	N
ATOM	3746	C	LYS	489	21.297	47.749	30.110	1.00	26.05	A	C
ATOM	3747	O	LYS	489	21.997	47.914	29.106	1.00	26.23	A	O
ATOM	3748	N	GLY	490	21.605	46.894	31.084	1.00	25.12	A	N
ATOM	3749	CA	GLY	490	22.812	46.094	31.019	1.00	23.91	A	C
ATOM	3750	C	GLY	490	22.694	44.966	30.017	1.00	25.29	A	C
ATOM	3751	O	GLY	490	21.855	44.082	30.172	1.00	27.16	A	O
ATOM	3752	N	LEU	491	23.531	44.991	28.986	1.00	24.58	A	N
ATOM	3753	CA	LEU	491	23.503	43.953	27.969	1.00	24.98	A	C
ATOM	3754	CB	LEU	491	24.298	44.385	26.737	1.00	25.21	A	C
ATOM	3755	CG	LEU	491	23.809	45.621	25.980	1.00	25.03	A	C
ATOM	3756	CD1	LEU	491	24.796	45.968	24.881	1.00	22.44	A	C
ATOM	3757	CD2	LEU	491	22.430	45.356	25.403	1.00	25.37	A	C
ATOM	3758	C	LEU	491	24.081	42.649	28.505	1.00	25.59	A	C
ATOM	3759	O	LEU	491	23.541	41.579	28.250	1.00	27.45	A	O
ATOM	3760	N	ARG	492	25.179	42.732	29.246	1.00	24.68	A	N
ATOM	3761	CA	ARG	492	25.798	41.529	29.780	1.00	24.07	A	C
ATOM	3762	CB	ARG	492	26.045	40.524	28.648	1.00	24.82	A	C
ATOM	3763	CG	ARG	492	27.159	40.919	27.666	1.00	26.62	A	C
ATOM	3764	CD	ARG	492	27.105	40.081	26.387	1.00	26.76	A	C
ATOM	3765	NE	ARG	492	25.884	40.357	25.641	1.00	29.45	A	N
ATOM	3766	CZ	ARG	492	25.708	41.414	24.855	1.00	30.52	A	C
ATOM	3767	NH1	ARG	492	26.684	42.297	24.692	1.00	31.57	A	N
ATOM	3768	NH2	ARG	492	24.540	41.610	24.261	1.00	29.62	A	N
ATOM	3769	C	ARG	492	27.117	41.831	30.473	1.00	23.83	A	C
ATOM	3770	O	ARG	492	27.602	42.958	30.438	1.00	22.78	A	O
ATOM	3771	N	VAL	493	27.680	40.807	31.109	1.00	24.93	A	N
ATOM	3772	CA	VAL	493	28.966	40.911	31.791	1.00	25.89	A	C

(Continued)

FIG. 4-78

ATOM	3773	CB	VAL	493	29.018	40.034	33.052	1.00	25.39	A	C
ATOM	3774	CG1	VAL	493	30.401	40.104	33.667	1.00	25.63	A	C
ATOM	3775	CG2	VAL	493	27.977	40.482	34.044	1.00	25.35	A	C
ATOM	3776	C	VAL	493	30.022	40.382	30.823	1.00	26.55	A	C
ATOM	3777	O	VAL	493	29.858	39.307	30.250	1.00	29.06	A	O
ATOM	3778	N	LEU	494	31.103	41.125	30.644	1.00	26.28	A	N
ATOM	3779	CA	LEU	494	32.154	40.705	29.731	1.00	25.35	A	C
ATOM	3780	CB	LEU	494	32.657	41.913	28.944	1.00	23.74	A	C
ATOM	3781	CG	LEU	494	31.611	42.554	28.031	1.00	22.82	A	C
ATOM	3782	CD1	LEU	494	32.017	43.989	27.697	1.00	22.34	A	C
ATOM	3783	CD2	LEU	494	31.453	41.706	26.769	1.00	19.11	A	C
ATOM	3784	C	LEU	494	33.315	40.034	30.453	1.00	26.29	A	C
ATOM	3785	O	LEU	494	34.001	39.182	29.885	1.00	29.20	A	O
ATOM	3786	N	GLU	495	33.536	40.420	31.703	1.00	24.94	A	N
ATOM	3787	CA	GLU	495	34.623	39.859	32.498	1.00	24.93	A	C
ATOM	3788	CB	GLU	495	35.969	40.445	32.060	1.00	24.61	A	C
ATOM	3789	CG	GLU	495	37.153	39.938	32.862	1.00	27.02	A	C
ATOM	3790	CD	GLU	495	37.332	38.435	32.733	1.00	29.02	A	C
ATOM	3791	OE1	GLU	495	37.263	37.724	33.760	1.00	29.22	A	O
ATOM	3792	OE2	GLU	495	37.539	37.962	31.596	1.00	30.56	A	O
ATOM	3793	C	GLU	495	34.357	40.210	33.951	1.00	25.32	A	C
ATOM	3794	O	GLU	495	34.146	41.380	34.285	1.00	24.97	A	O
ATOM	3795	N	ASP	496	34.358	39.197	34.809	1.00	25.38	A	N
ATOM	3796	CA	ASP	496	34.093	39.409	36.224	1.00	27.01	A	C
ATOM	3797	CB	ASP	496	32.761	38.757	36.602	1.00	27.17	A	C
ATOM	3798	CG	ASP	496	32.814	37.236	36.567	1.00	27.71	A	C
ATOM	3799	OD1	ASP	496	31.755	36.611	36.759	1.00	30.85	A	O
ATOM	3800	OD2	ASP	496	33.898	36.657	36.360	1.00	29.23	A	O
ATOM	3801	C	ASP	496	35.213	38.889	37.127	1.00	27.65	A	C
ATOM	3802	O	ASP	496	35.177	39.071	38.345	1.00	27.02	A	O
ATOM	3803	N	ASN	497	36.201	38.234	36.528	1.00	27.52	A	N
ATOM	3804	CA	ASN	497	37.329	37.717	37.287	1.00	29.40	A	C
ATOM	3805	CB	ASN	497	38.047	38.863	37.998	1.00	28.73	A	C
ATOM	3806	CG	ASN	497	38.973	39.622	37.080	1.00	29.26	A	C
ATOM	3807	OD1	ASN	497	39.988	39.093	36.630	1.00	27.48	A	O
ATOM	3808	ND2	ASN	497	38.628	40.870	36.792	1.00	31.42	A	N
ATOM	3809	C	ASN	497	36.946	36.652	38.301	1.00	30.77	A	C
ATOM	3810	O	ASN	497	37.407	36.669	39.444	1.00	31.70	A	O
ATOM	3811	N	SER	498	36.108	35.721	37.869	1.00	31.77	A	N
ATOM	3812	CA	SER	498	35.666	34.629	38.716	1.00	31.32	A	C
ATOM	3813	CB	SER	498	34.644	33.778	37.974	1.00	32.01	A	C
ATOM	3814	OG	SER	498	33.520	34.561	37.629	1.00	35.01	A	O
ATOM	3815	C	SER	498	36.854	33.772	39.093	1.00	30.55	A	C
ATOM	3816	O	SER	498	37.056	33.456	40.266	1.00	31.44	A	O
ATOM	3817	N	ALA	499	37.638	33.398	38.087	1.00	29.46	A	N
ATOM	3818	CA	ALA	499	38.814	32.566	38.304	1.00	29.07	A	C
ATOM	3819	CB	ALA	499	39.626	32.477	37.033	1.00	27.47	A	C
ATOM	3820	C	ALA	499	39.657	33.156	39.421	1.00	30.28	A	C
ATOM	3821	O	ALA	499	39.885	32.515	40.447	1.00	30.98	A	O

(Continued)

FIG. 4-79

ATOM	3822	N	LEU	500	40.098	34.393	39.223	1.00	30.98	A	N
ATOM	3823	CA	LEU	500	40.919	35.073	40.208	1.00	31.89	A	C
ATOM	3824	CB	LEU	500	41.218	36.502	39.755	1.00	31.32	A	C
ATOM	3825	CG	LEU	500	42.106	37.312	40.703	1.00	31.18	A	C
ATOM	3826	CD1	LEU	500	43.459	36.635	40.871	1.00	29.43	A	C
ATOM	3827	CD2	LEU	500	42.269	38.711	40.155	1.00	31.85	A	C
ATOM	3828	C	LEU	500	40.251	35.096	41.574	1.00	33.26	A	C
ATOM	3829	O	LEU	500	40.878	34.772	42.578	1.00	33.38	A	O
ATOM	3830	N	ASP	501	38.984	35.484	41.624	1.00	35.48	A	N
ATOM	3831	CA	ASP	501	38.294	35.522	42.905	1.00	38.46	A	C
ATOM	3832	CB	ASP	501	36.815	35.859	42.720	1.00	40.04	A	C
ATOM	3833	CG	ASP	501	36.068	35.942	44.043	1.00	42.67	A	C
ATOM	3834	OD1	ASP	501	36.349	36.870	44.831	1.00	44.51	A	O
ATOM	3835	OD2	ASP	501	35.202	35.076	44.300	1.00	44.58	A	O
ATOM	3836	C	ASP	501	38.432	34.149	43.557	1.00	39.76	A	C
ATOM	3837	O	ASP	501	38.622	34.039	44.765	1.00	39.03	A	O
ATOM	3838	N	LYS	502	38.352	33.103	42.740	1.00	41.28	A	N
ATOM	3839	CA	LYS	502	38.470	31.741	43.237	1.00	42.62	A	C
ATOM	3840	CB	LYS	502	38.206	30.746	42.100	1.00	44.22	A	C
ATOM	3841	CG	LYS	502	37.853	29.323	42.548	1.00	45.49	A	C
ATOM	3842	CD	LYS	502	39.071	28.557	43.050	1.00	47.22	A	C
ATOM	3843	CE	LYS	502	38.700	27.147	43.516	1.00	47.98	A	C
ATOM	3844	NZ	LYS	502	37.783	27.155	44.696	1.00	47.33	A	N
ATOM	3845	C	LYS	502	39.866	31.534	43.828	1.00	43.11	A	C
ATOM	3846	O	LYS	502	40.001	31.079	44.963	1.00	43.40	A	O
ATOM	3847	N	MET	503	40.900	31.881	43.064	1.00	42.72	A	N
ATOM	3848	CA	MET	503	42.280	31.735	43.528	1.00	43.17	A	C
ATOM	3849	CB	MET	503	43.256	32.193	42.444	1.00	45.35	A	C
ATOM	3850	CG	MET	503	43.267	31.332	41.200	1.00	48.35	A	C
ATOM	3851	SD	MET	503	44.396	32.004	39.952	1.00	54.36	A	S
ATOM	3852	CE	MET	503	45.957	31.226	40.438	1.00	52.89	A	C
ATOM	3853	C	MET	503	42.551	32.530	44.807	1.00	41.81	A	C
ATOM	3854	O	MET	503	43.059	31.990	45.790	1.00	40.44	A	O
ATOM	3855	N	LEU	504	42.215	33.815	44.779	1.00	41.12	A	N
ATOM	3856	CA	LEU	504	42.412	34.700	45.919	1.00	42.37	A	C
ATOM	3857	CB	LEU	504	41.914	36.103	45.566	1.00	41.90	A	C
ATOM	3858	CG	LEU	504	42.960	37.197	45.314	1.00	42.42	A	C
ATOM	3859	CD1	LEU	504	44.111	36.668	44.472	1.00	41.70	A	C
ATOM	3860	CD2	LEU	504	42.277	38.376	44.635	1.00	40.64	A	C
ATOM	3861	C	LEU	504	41.727	34.211	47.199	1.00	43.78	A	C
ATOM	3862	O	LEU	504	42.056	34.664	48.298	1.00	43.47	A	O
ATOM	3863	N	GLN	505	40.774	33.292	47.054	1.00	44.74	A	N
ATOM	3864	CA	GLN	505	40.053	32.737	48.198	1.00	45.12	A	C
ATOM	3865	CB	GLN	505	38.911	31.834	47.721	1.00	47.10	A	C
ATOM	3866	CG	GLN	505	37.767	32.574	47.059	1.00	50.85	A	C
ATOM	3867	CD	GLN	505	37.091	33.544	48.005	1.00	52.28	A	C
ATOM	3868	OE1	GLN	505	36.320	33.143	48.878	1.00	53.91	A	O
ATOM	3869	NE2	GLN	505	37.390	34.829	47.848	1.00	53.20	A	N
ATOM	3870	C	GLN	505	40.981	31.920	49.090	1.00	44.28	A	C

(Continued)

FIG. 4-80

ATOM	3871	O	GLN	505	40.806	31.863	50.309	1.00	44.07	A O
ATOM	3872	N	ASN	506	41.970	31.288	48.473	1.00	43.04	A N
ATOM	3873	CA	ASN	506	42.907	30.452	49.205	1.00	43.10	A C
ATOM	3874	CB	ASN	506	43.301	29.254	48.344	1.00	47.04	A C
ATOM	3875	CG	ASN	506	43.962	28.157	49.141	1.00	50.97	A C
ATOM	3876	OD1	ASN	506	44.478	27.187	48.575	1.00	53.71	A O
ATOM	3877	ND2	ASN	506	43.945	28.293	50.467	1.00	52.33	A N
ATOM	3878	C	ASN	506	44.156	31.211	49.635	1.00	41.53	A C
ATOM	3879	O	ASN	506	45.191	30.605	49.903	1.00	41.33	A O
ATOM	3880	N	VAL	507	44.060	32.538	49.696	1.00	39.25	A N
ATOM	3881	CA	VAL	507	45.186	33.367	50.110	1.00	35.74	A C
ATOM	3882	CB	VAL	507	45.801	34.155	48.927	1.00	35.80	A C
ATOM	3883	CG1	VAL	507	46.989	34.974	49.416	1.00	34.07	A C
ATOM	3884	CG2	VAL	507	46.234	33.204	47.823	1.00	34.58	A C
ATOM	3885	C	VAL	507	44.726	34.369	51.154	1.00	34.07	A C
ATOM	3886	O	VAL	507	43.617	34.887	51.080	1.00	33.19	A O
ATOM	3887	N	GLN	508	45.586	34.634	52.129	1.00	33.03	A N
ATOM	3888	CA	GLN	508	45.272	35.578	53.191	1.00	31.62	A C
ATOM	3889	CB	GLN	508	46.146	35.307	54.418	1.00	31.47	A C
ATOM	3890	CG	GLN	508	46.034	33.894	54.970	1.00	31.59	A C
ATOM	3891	CD	GLN	508	46.955	33.667	56.155	1.00	30.69	A C
ATOM	3892	OE1	GLN	508	46.994	34.471	57.083	1.00	31.83	A O
ATOM	3893	NE2	GLN	508	47.696	32.568	56.130	1.00	28.80	A N
ATOM	3894	C	GLN	508	45.521	36.996	52.689	1.00	30.18	A C
ATOM	3895	O	GLN	508	46.480	37.648	53.097	1.00	29.60	A O
ATOM	3896	N	MET	509	44.652	37.463	51.801	1.00	28.77	A N
ATOM	3897	CA	MET	509	44.775	38.797	51.236	1.00	28.64	A C
ATOM	3898	CB	MET	509	43.744	38.993	50.124	1.00	30.06	A C
ATOM	3899	CG	MET	509	44.004	38.143	48.896	1.00	31.71	A C
ATOM	3900	SD	MET	509	45.605	38.540	48.171	1.00	34.08	A S
ATOM	3901	CE	MET	509	45.130	39.727	46.922	1.00	30.89	A C
ATOM	3902	C	MET	509	44.602	39.890	52.280	1.00	27.67	A C
ATOM	3903	O	MET	509	43.875	39.724	53.255	1.00	28.41	A O
ATOM	3904	N	PRO	510	45.279	41.032	52.085	1.00	26.51	A N
ATOM	3905	CD	PRO	510	46.198	41.361	50.978	1.00	25.01	A C
ATOM	3906	CA	PRO	510	45.180	42.150	53.023	1.00	24.17	A C
ATOM	3907	CB	PRO	510	46.401	42.985	52.672	1.00	24.51	A C
ATOM	3908	CG	PRO	510	46.442	42.847	51.185	1.00	23.21	A C
ATOM	3909	C	PRO	510	43.881	42.896	52.741	1.00	23.17	A C
ATOM	3910	O	PRO	510	43.209	42.632	51.751	1.00	24.30	A O
ATOM	3911	N	SER	511	43.527	43.826	53.607	1.00	22.25	A N
ATOM	3912	CA	SER	511	42.315	44.592	53.409	1.00	23.52	A C
ATOM	3913	CB	SER	511	41.375	44.441	54.606	1.00	21.47	A C
ATOM	3914	OG	SER	511	42.000	44.897	55.796	1.00	22.50	A O
ATOM	3915	C	SER	511	42.734	46.043	53.258	1.00	25.81	A C
ATOM	3916	O	SER	511	43.823	46.433	53.687	1.00	27.50	A O
ATOM	3917	N	LYS	512	41.869	46.838	52.642	1.00	25.44	A N
ATOM	3918	CA	LYS	512	42.148	48.242	52.437	1.00	24.17	A C
ATOM	3919	CB	LYS	512	42.178	48.555	50.943	1.00	23.04	A C

(Continued)

FIG. 4-81

ATOM	3920	CG	LYS	512	42.252	50.043	50.621	1.00	21.12	A C
ATOM	3921	CD	LYS	512	42.368	50.249	49.125	1.00	21.07	A C
ATOM	3922	CE	LYS	512	42.639	51.688	48.792	1.00	19.46	A C
ATOM	3923	NZ	LYS	512	42.779	51.870	47.343	1.00	15.68	A N
ATOM	3924	C	LYS	512	41.095	49.109	53.105	1.00	24.25	A C
ATOM	3925	O	LYS	512	39.905	48.958	52.846	1.00	23.45	A O
ATOM	3926	N	LYS	513	41.546	50.017	53.960	1.00	24.50	A N
ATOM	3927	CA	LYS	513	40.661	50.941	54.647	1.00	25.28	A C
ATOM	3928	CB	LYS	513	41.040	51.041	56.124	1.00	26.65	A C
ATOM	3929	CG	LYS	513	40.202	52.025	56.914	1.00	27.55	A C
ATOM	3930	CD	LYS	513	38.754	51.577	56.954	1.00	33.11	A C
ATOM	3931	CE	LYS	513	37.901	52.476	57.844	1.00	35.12	A C
ATOM	3932	NZ	LYS	513	36.503	51.943	57.960	1.00	38.12	A N
ATOM	3933	C	LYS	513	40.806	52.312	53.999	1.00	26.42	A C
ATOM	3934	O	LYS	513	41.918	52.829	53.877	1.00	28.66	A O
ATOM	3935	N	LEU	514	39.688	52.891	53.575	1.00	25.40	A N
ATOM	3936	CA	LEU	514	39.688	54.213	52.958	1.00	22.53	A C
ATOM	3937	CB	LEU	514	39.147	54.119	51.536	1.00	20.88	A C
ATOM	3938	CG	LEU	514	38.866	55.443	50.825	1.00	21.52	A C
ATOM	3939	CD1	LEU	514	40.149	56.242	50.662	1.00	20.94	A C
ATOM	3940	CD2	LEU	514	38.244	55.153	49.476	1.00	22.59	A C
ATOM	3941	C	LEU	514	38.812	55.151	53.788	1.00	22.73	A C
ATOM	3942	O	LEU	514	37.591	54.981	53.844	1.00	20.65	A O
ATOM	3943	N	ASP	515	39.435	56.132	54.437	1.00	23.05	A N
ATOM	3944	CA	ASP	515	38.693	57.076	55.268	1.00	25.43	A C
ATOM	3945	CB	ASP	515	38.581	56.535	56.693	1.00	27.35	A C
ATOM	3946	CG	ASP	515	37.419	57.142	57.458	1.00	30.82	A C
ATOM	3947	OD1	ASP	515	37.278	56.851	58.668	1.00	32.73	A O
ATOM	3948	OD2	ASP	515	36.639	57.905	56.851	1.00	32.89	A O
ATOM	3949	C	ASP	515	39.346	58.462	55.287	1.00	26.80	A C
ATOM	3950	O	ASP	515	40.054	58.835	54.357	1.00	27.23	A O
ATOM	3951	N	PHE	516	39.107	59.230	56.345	1.00	27.53	A N
ATOM	3952	CA	PHE	516	39.688	60.566	56.431	1.00	28.71	A C
ATOM	3953	CB	PHE	516	38.780	61.590	55.729	1.00	28.60	A C
ATOM	3954	CG	PHE	516	37.387	61.658	56.291	1.00	28.84	A C
ATOM	3955	CD1	PHE	516	37.160	62.115	57.583	1.00	29.59	A C
ATOM	3956	CD2	PHE	516	36.297	61.242	55.532	1.00	30.94	A C
ATOM	3957	CE1	PHE	516	35.875	62.157	58.116	1.00	28.99	A C
ATOM	3958	CE2	PHE	516	35.002	61.279	56.058	1.00	29.88	A C
ATOM	3959	CZ	PHE	516	34.795	61.737	57.352	1.00	29.33	A C
ATOM	3960	C	PHE	516	39.943	61.024	57.861	1.00	28.58	A C
ATOM	3961	O	PHE	516	39.414	60.450	58.811	1.00	29.42	A O
ATOM	3962	N	ILE	517	40.773	62.053	57.990	1.00	26.80	A N
ATOM	3963	CA	ILE	517	41.094	62.651	59.272	1.00	28.68	A C
ATOM	3964	CB	ILE	517	42.580	62.410	59.686	1.00	27.66	A C
ATOM	3965	CG2	ILE	517	42.799	60.937	59.989	1.00	23.78	A C
ATOM	3966	CG1	ILE	517	43.538	62.861	58.581	1.00	29.30	A C
ATOM	3967	CD1	ILE	517	43.676	64.361	58.431	1.00	31.79	A C
ATOM	3968	C	ILE	517	40.829	64.132	59.041	1.00	30.84	A C

(Continued)

FIG. 4-82

ATOM	3969	O	ILE	517	40.813	64.577	57.898	1.00	31.70	A O
ATOM	3970	N	ILE	518	40.616	64.899	60.102	1.00	32.28	A N
ATOM	3971	CA	ILE	518	40.323	66.313	59.924	1.00	33.51	A C
ATOM	3972	CB	ILE	518	38.977	66.683	60.595	1.00	33.41	A C
ATOM	3973	CG2	ILE	518	38.603	68.125	60.283	1.00	33.29	A C
ATOM	3974	CG1	ILE	518	37.871	65.765	60.072	1.00	33.38	A C
ATOM	3975	CD1	ILE	518	36.535	65.972	60.749	1.00	33.46	A C
ATOM	3976	C	ILE	518	41.415	67.222	60.455	1.00	35.00	A C
ATOM	3977	O	ILE	518	41.883	67.069	61.580	1.00	35.82	A O
ATOM	3978	N	LEU	519	41.824	68.169	59.622	1.00	36.74	A N
ATOM	3979	CA	LEU	519	42.850	69.126	59.997	1.00	39.19	A C
ATOM	3980	CB	LEU	519	44.169	68.828	59.276	1.00	38.52	A C
ATOM	3981	CG	LEU	519	44.746	67.413	59.364	1.00	39.20	A C
ATOM	3982	CD1	LEU	519	45.996	67.326	58.493	1.00	39.31	A C
ATOM	3983	CD2	LEU	519	45.068	67.059	60.806	1.00	39.59	A C
ATOM	3984	C	LEU	519	42.351	70.501	59.591	1.00	40.26	A C
ATOM	3985	O	LEU	519	42.102	70.754	58.414	1.00	40.93	A O
ATOM	3986	N	ASN	520	42.198	71.382	60.574	1.00	41.70	A N
ATOM	3987	CA	ASN	520	41.736	72.735	60.321	1.00	42.46	A C
ATOM	3988	CB	ASN	520	42.760	73.474	59.467	1.00	44.27	A C
ATOM	3989	CG	ASN	520	44.078	73.635	60.177	1.00	46.04	A C
ATOM	3990	OD1	ASN	520	44.540	72.723	60.859	1.00	47.21	A O
ATOM	3991	ND2	ASN	520	44.697	74.796	60.020	1.00	50.39	A N
ATOM	3992	C	ASN	520	40.384	72.728	59.638	1.00	42.18	A C
ATOM	3993	O	ASN	520	40.183	73.388	58.620	1.00	42.15	A O
ATOM	3994	N	GLU	521	39.461	71.963	60.210	1.00	41.73	A N
ATOM	3995	CA	GLU	521	38.105	71.861	59.691	1.00	42.64	A C
ATOM	3996	CB	GLU	521	37.445	73.245	59.660	1.00	44.72	A C
ATOM	3997	CG	GLU	521	37.967	74.204	60.715	1.00	48.09	A C
ATOM	3998	CD	GLU	521	38.057	73.564	62.081	1.00	50.91	A C
ATOM	3999	OE1	GLU	521	36.994	73.245	62.661	1.00	52.95	A O
ATOM	4000	OE2	GLU	521	39.194	73.374	62.568	1.00	51.94	A O
ATOM	4001	C	GLU	521	38.041	71.248	58.296	1.00	40.90	A C
ATOM	4002	O	GLU	521	36.967	71.171	57.701	1.00	40.88	A O
ATOM	4003	N	THR	522	39.182	70.814	57.772	1.00	39.01	A N
ATOM	4004	CA	THR	522	39.206	70.221	56.442	1.00	36.94	A C
ATOM	4005	CB	THR	522	40.339	70.816	55.584	1.00	38.55	A C
ATOM	4006	OG1	THR	522	40.127	72.223	55.431	1.00	40.51	A O
ATOM	4007	CG2	THR	522	40.364	70.171	54.202	1.00	39.39	A C
ATOM	4008	C	THR	522	39.357	68.706	56.482	1.00	34.94	A C
ATOM	4009	O	THR	522	40.086	68.152	57.305	1.00	33.48	A O
ATOM	4010	N	LYS	523	38.653	68.045	55.573	1.00	33.07	A N
ATOM	4011	CA	LYS	523	38.685	66.597	55.479	1.00	30.63	A C
ATOM	4012	CB	LYS	523	37.357	66.105	54.901	1.00	31.78	A C
ATOM	4013	CG	LYS	523	36.882	64.770	55.440	1.00	34.92	A C
ATOM	4014	CD	LYS	523	35.473	64.458	54.956	1.00	37.12	A C
ATOM	4015	CE	LYS	523	34.473	65.488	55.455	1.00	40.20	A C
ATOM	4016	NZ	LYS	523	33.111	65.296	54.873	1.00	43.74	A N
ATOM	4017	C	LYS	523	39.845	66.191	54.576	1.00	28.84	A C

(Continued)

FIG. 4-83

ATOM	4018	O	LYS	523	39.962	66.661	53.448	1.00	29.90	A	O
ATOM	4019	N	PHE	524	40.711	65.329	55.086	1.00	26.11	A	N
ATOM	4020	CA	PHE	524	41.857	64.858	54.334	1.00	23.17	A	C
ATOM	4021	CB	PHE	524	43.139	65.407	54.953	1.00	22.95	A	C
ATOM	4022	CG	PHE	524	43.394	66.854	54.636	1.00	21.35	A	C
ATOM	4023	CD1	PHE	524	43.773	67.242	53.346	1.00	21.14	A	C
ATOM	4024	CD2	PHE	524	43.265	67.830	55.620	1.00	18.86	A	C
ATOM	4025	CE1	PHE	524	44.026	68.587	53.040	1.00	19.22	A	C
ATOM	4026	CE2	PHE	524	43.512	69.171	55.329	1.00	19.37	A	C
ATOM	4027	CZ	PHE	524	43.895	69.552	54.034	1.00	19.34	A	C
ATOM	4028	C	PHE	524	41.872	63.337	54.328	1.00	23.15	A	C
ATOM	4029	O	PHE	524	42.084	62.703	55.356	1.00	22.01	A	O
ATOM	4030	N	TRP	525	41.640	62.758	53.156	1.00	24.00	A	N
ATOM	4031	CA	TRP	525	41.593	61.309	53.000	1.00	23.65	A	C
ATOM	4032	CB	TRP	525	40.875	60.958	51.696	1.00	23.74	A	C
ATOM	4033	CG	TRP	525	39.476	61.452	51.647	1.00	24.69	A	C
ATOM	4034	CD2	TRP	525	38.291	60.687	51.893	1.00	25.25	A	C
ATOM	4035	CE2	TRP	525	37.195	61.572	51.800	1.00	26.02	A	C
ATOM	4036	CE3	TRP	525	38.049	59.339	52.186	1.00	25.53	A	C
ATOM	4037	CD1	TRP	525	39.065	62.732	51.418	1.00	25.58	A	C
ATOM	4038	NE1	TRP	525	37.693	62.815	51.508	1.00	25.32	A	N
ATOM	4039	CZ2	TRP	525	35.874	61.151	51.990	1.00	25.72	A	C
ATOM	4040	CZ3	TRP	525	36.735	58.919	52.374	1.00	24.54	A	C
ATOM	4041	CH2	TRP	525	35.666	59.824	52.276	1.00	24.86	A	C
ATOM	4042	C	TRP	525	42.927	60.566	53.042	1.00	23.39	A	C
ATOM	4043	O	TRP	525	43.994	61.127	52.803	1.00	24.19	A	O
ATOM	4044	N	TYR	526	42.840	59.280	53.347	1.00	22.63	A	N
ATOM	4045	CA	TYR	526	44.002	58.412	53.410	1.00	22.38	A	C
ATOM	4046	CB	TYR	526	44.715	58.546	54.763	1.00	22.15	A	C
ATOM	4047	CG	TYR	526	43.946	57.946	55.929	1.00	24.08	A	C
ATOM	4048	CD1	TYR	526	43.968	56.574	56.178	1.00	23.01	A	C
ATOM	4049	CE1	TYR	526	43.215	56.017	57.204	1.00	25.01	A	C
ATOM	4050	CD2	TYR	526	43.150	58.748	56.747	1.00	24.62	A	C
ATOM	4051	CE2	TYR	526	42.395	58.205	57.772	1.00	24.74	A	C
ATOM	4052	CZ	TYR	526	42.426	56.840	57.997	1.00	25.67	A	C
ATOM	4053	OH	TYR	526	41.650	56.303	59.003	1.00	25.43	A	O
ATOM	4054	C	TYR	526	43.478	56.990	53.251	1.00	22.00	A	C
ATOM	4055	O	TYR	526	42.294	56.724	53.482	1.00	21.71	A	O
ATOM	4056	N	GLN	527	44.353	56.084	52.843	1.00	19.68	A	N
ATOM	4057	CA	GLN	527	43.964	54.697	52.707	1.00	20.14	A	C
ATOM	4058	CB	GLN	527	43.842	54.301	51.238	1.00	19.56	A	C
ATOM	4059	CG	GLN	527	45.123	54.422	50.465	1.00	23.06	A	C
ATOM	4060	CD	GLN	527	44.986	53.890	49.065	1.00	23.49	A	C
ATOM	4061	OE1	GLN	527	44.034	54.222	48.359	1.00	25.79	A	O
ATOM	4062	NE2	GLN	527	45.937	53.066	48.648	1.00	22.35	A	N
ATOM	4063	C	GLN	527	45.038	53.871	53.389	1.00	20.67	A	C
ATOM	4064	O	GLN	527	46.172	54.334	53.563	1.00	19.72	A	O
ATOM	4065	N	MET	528	44.674	52.659	53.792	1.00	21.11	A	N
ATOM	4066	CA	MET	528	45.610	51.771	54.460	1.00	22.32	A	C

(Continued)

FIG. 4-84

ATOM	4067	CB	MET	528	45.372	51.753	55.967	1.00	23.57	A	C
ATOM	4068	CG	MET	528	45.830	52.971	56.727	1.00	23.53	A	C
ATOM	4069	SD	MET	528	45.605	52.683	58.492	1.00	23.56	A	S
ATOM	4070	CE	MET	528	46.400	54.107	59.158	1.00	21.91	A	C
ATOM	4071	C	MET	528	45.482	50.347	53.974	1.00	23.25	A	C
ATOM	4072	O	MET	528	44.383	49.790	53.935	1.00	24.82	A	O
ATOM	4073	N	ILE	529	46.605	49.751	53.600	1.00	22.51	A	N
ATOM	4074	CA	ILE	529	46.587	48.363	53.183	1.00	21.97	A	C
ATOM	4075	CB	ILE	529	47.644	48.078	52.116	1.00	19.54	A	C
ATOM	4076	CG2	ILE	529	47.557	46.635	51.681	1.00	18.75	A	C
ATOM	4077	CG1	ILE	529	47.454	49.029	50.927	1.00	21.01	A	C
ATOM	4078	CD1	ILE	529	46.045	49.038	50.335	1.00	19.28	A	C
ATOM	4079	C	ILE	529	46.937	47.620	54.465	1.00	24.02	A	C
ATOM	4080	O	ILE	529	48.114	47.505	54.820	1.00	25.51	A	O
ATOM	4081	N	LEU	530	45.911	47.153	55.175	1.00	24.47	A	N
ATOM	4082	CA	LEU	530	46.114	46.443	56.438	1.00	24.76	A	C
ATOM	4083	CB	LEU	530	44.915	46.640	57.370	1.00	24.08	A	C
ATOM	4084	CG	LEU	530	44.451	48.052	57.726	1.00	24.92	A	C
ATOM	4085	CD1	LEU	530	43.365	47.928	58.763	1.00	26.76	A	C
ATOM	4086	CD2	LEU	530	45.589	48.896	58.272	1.00	25.50	A	C
ATOM	4087	C	LEU	530	46.337	44.953	56.241	1.00	24.39	A	C
ATOM	4088	O	LEU	530	45.686	44.319	55.411	1.00	24.58	A	O
ATOM	4089	N	PRO	531	47.272	44.374	57.003	1.00	24.58	A	N
ATOM	4090	CD	PRO	531	48.174	45.045	57.950	1.00	24.42	A	C
ATOM	4091	CA	PRO	531	47.578	42.943	56.913	1.00	26.79	A	C
ATOM	4092	CB	PRO	531	48.763	42.784	57.862	1.00	26.36	A	C
ATOM	4093	CG	PRO	531	48.580	43.913	58.838	1.00	26.79	A	C
ATOM	4094	C	PRO	531	46.388	42.078	57.312	1.00	28.05	A	C
ATOM	4095	O	PRO	531	45.443	42.562	57.931	1.00	31.01	A	O
ATOM	4096	N	PRO	532	46.417	40.782	56.964	1.00	28.42	A	N
ATOM	4097	CD	PRO	532	47.484	40.062	56.253	1.00	28.00	A	C
ATOM	4098	CA	PRO	532	45.316	39.874	57.306	1.00	28.68	A	C
ATOM	4099	CB	PRO	532	45.783	38.534	56.745	1.00	28.68	A	C
ATOM	4100	CG	PRO	532	46.726	38.912	55.659	1.00	28.50	A	C
ATOM	4101	C	PRO	532	45.113	39.799	58.814	1.00	29.80	A	C
ATOM	4102	O	PRO	532	46.051	40.006	59.579	1.00	31.52	A	O
ATOM	4103	N	HIS	533	43.894	39.501	59.242	1.00	31.29	A	N
ATOM	4104	CA	HIS	533	43.605	39.382	60.670	1.00	31.80	A	C
ATOM	4105	CB	HIS	533	44.278	38.127	61.225	1.00	29.82	A	C
ATOM	4106	CG	HIS	533	44.170	36.936	60.324	1.00	29.23	A	C
ATOM	4107	CD2	HIS	533	45.114	36.247	59.641	1.00	28.40	A	C
ATOM	4108	ND1	HIS	533	42.966	36.335	60.024	1.00	28.40	A	N
ATOM	4109	CE1	HIS	533	43.174	35.326	59.197	1.00	28.67	A	C
ATOM	4110	NE2	HIS	533	44.469	35.251	58.949	1.00	28.85	A	N
ATOM	4111	C	HIS	533	44.101	40.601	61.445	1.00	33.77	A	C
ATOM	4112	O	HIS	533	44.469	40.489	62.617	1.00	33.99	A	O
ATOM	4113	N	PHE	534	44.121	41.758	60.787	1.00	35.52	A	N
ATOM	4114	CA	PHE	534	44.578	42.987	61.427	1.00	37.29	A	C
ATOM	4115	CB	PHE	534	44.249	44.203	60.555	1.00	36.11	A	C

(Continued)

FIG. 4-85

ATOM	4116	CG	PHE	534	44.510	45.523	61.235	1.00	35.46	A C
ATOM	4117	CD1	PHE	534	45.811	45.956	61.475	1.00	35.65	A C
ATOM	4118	CD2	PHE	534	43.455	46.320	61.654	1.00	33.35	A C
ATOM	4119	CE1	PHE	534	46.056	47.167	62.124	1.00	36.55	A C
ATOM	4120	CE2	PHE	534	43.688	47.530	62.304	1.00	35.26	A C
ATOM	4121	CZ	PHE	534	44.990	47.957	62.541	1.00	35.35	A C
ATOM	4122	C	PHE	534	43.920	43.158	62.790	1.00	38.07	A C
ATOM	4123	O	PHE	534	42.705	43.046	62.911	1.00	38.83	A O
ATOM	4124	N	ASP	535	44.725	43.435	63.810	1.00	39.27	A N
ATOM	4125	CA	ASP	535	44.206	43.621	65.160	1.00	40.72	A C
ATOM	4126	CB	ASP	535	44.751	42.541	66.089	1.00	43.14	A C
ATOM	4127	CG	ASP	535	44.102	42.571	67.460	1.00	46.19	A C
ATOM	4128	OD1	ASP	535	43.704	43.668	67.912	1.00	46.58	A O
ATOM	4129	OD2	ASP	535	43.999	41.499	68.092	1.00	48.00	A O
ATOM	4130	C	ASP	535	44.614	44.985	65.699	1.00	40.91	A C
ATOM	4131	O	ASP	535	45.799	45.270	65.837	1.00	40.57	A O
ATOM	4132	N	LYS	536	43.635	45.822	66.022	1.00	41.40	A N
ATOM	4133	CA	LYS	536	43.936	47.148	66.539	1.00	42.56	A C
ATOM	4134	CB	LYS	536	42.675	48.018	66.572	1.00	44.69	A C
ATOM	4135	CG	LYS	536	42.146	48.406	65.200	1.00	47.06	A C
ATOM	4136	CD	LYS	536	41.156	49.566	65.289	1.00	49.52	A C
ATOM	4137	CE	LYS	536	40.721	50.020	63.897	1.00	50.85	A C
ATOM	4138	NZ	LYS	536	39.965	51.303	63.921	1.00	51.05	A N
ATOM	4139	C	LYS	536	44.553	47.105	67.928	1.00	42.57	A C
ATOM	4140	O	LYS	536	44.896	48.147	68.486	1.00	42.20	A O
ATOM	4141	N	SER	537	44.697	45.907	68.486	1.00	42.80	A N
ATOM	4142	CA	SER	537	45.277	45.762	69.820	1.00	43.70	A C
ATOM	4143	CB	SER	537	44.744	44.499	70.513	1.00	44.09	A C
ATOM	4144	OG	SER	537	45.222	43.319	69.888	1.00	43.50	A O
ATOM	4145	C	SER	537	46.796	45.696	69.737	1.00	43.27	A C
ATOM	4146	O	SER	537	47.498	46.061	70.682	1.00	44.98	A O
ATOM	4147	N	LYS	538	47.295	45.230	68.598	1.00	41.93	A N
ATOM	4148	CA	LYS	538	48.729	45.110	68.380	1.00	40.13	A C
ATOM	4149	CB	LYS	538	49.024	43.917	67.470	1.00	41.29	A C
ATOM	4150	CG	LYS	538	48.521	42.590	68.013	1.00	42.24	A C
ATOM	4151	CD	LYS	538	48.834	41.446	67.073	1.00	41.97	A C
ATOM	4152	CE	LYS	538	48.317	40.140	67.638	1.00	42.57	A C
ATOM	4153	NZ	LYS	538	46.864	40.231	67.960	1.00	44.10	A N
ATOM	4154	C	LYS	538	49.280	46.372	67.741	1.00	38.59	A C
ATOM	4155	O	LYS	538	48.526	47.229	67.283	1.00	38.17	A O
ATOM	4156	N	LYS	539	50.601	46.485	67.725	1.00	36.92	A N
ATOM	4157	CA	LYS	539	51.263	47.629	67.116	1.00	36.43	A C
ATOM	4158	CB	LYS	539	52.293	48.225	68.079	1.00	37.32	A C
ATOM	4159	CG	LYS	539	51.693	48.838	69.341	1.00	37.42	A C
ATOM	4160	CD	LYS	539	50.925	50.117	69.028	1.00	40.01	A C
ATOM	4161	CE	LYS	539	50.209	50.674	70.258	1.00	41.64	A C
ATOM	4162	NZ	LYS	539	51.121	51.014	71.389	1.00	43.98	A N
ATOM	4163	C	LYS	539	51.943	47.110	65.849	1.00	35.38	A C
ATOM	4164	O	LYS	539	52.699	46.137	65.893	1.00	35.49	A O

(Continued)

FIG. 4-86

ATOM	4165	N	TYR	540	51.658	47.747	64.719	1.00	33.00	A N
ATOM	4166	CA	TYR	540	52.229	47.316	63.452	1.00	30.12	A C
ATOM	4167	CB	TYR	540	51.131	47.135	62.397	1.00	28.99	A C
ATOM	4168	CG	TYR	540	50.204	45.968	62.630	1.00	29.13	A C
ATOM	4169	CD1	TYR	540	49.109	46.078	63.488	1.00	28.32	A C
ATOM	4170	CE1	TYR	540	48.254	45.000	63.699	1.00	27.13	A C
ATOM	4171	CD2	TYR	540	50.421	44.748	61.990	1.00	27.62	A C
ATOM	4172	CE2	TYR	540	49.576	43.669	62.196	1.00	26.32	A C
ATOM	4173	CZ	TYR	540	48.495	43.800	63.051	1.00	27.64	A C
ATOM	4174	OH	TYR	540	47.661	42.724	63.260	1.00	29.67	A O
ATOM	4175	C	TYR	540	53.242	48.287	62.890	1.00	29.33	A C
ATOM	4176	O	TYR	540	53.130	49.492	63.091	1.00	31.23	A O
ATOM	4177	N	PRO	541	54.270	47.772	62.199	1.00	27.71	A N
ATOM	4178	CD	PRO	541	54.717	46.383	62.020	1.00	25.95	A C
ATOM	4179	CA	PRO	541	55.238	48.708	61.634	1.00	27.56	A C
ATOM	4180	CB	PRO	541	56.361	47.794	61.148	1.00	26.81	A C
ATOM	4181	CG	PRO	541	55.662	46.512	60.867	1.00	25.92	A C
ATOM	4182	C	PRO	541	54.463	49.358	60.500	1.00	27.83	A C
ATOM	4183	O	PRO	541	53.579	48.727	59.912	1.00	28.03	A O
ATOM	4184	N	LEU	542	54.763	50.613	60.200	1.00	27.70	A N
ATOM	4185	CA	LEU	542	54.032	51.307	59.154	1.00	26.55	A C
ATOM	4186	CB	LEU	542	53.220	52.440	59.791	1.00	26.11	A C
ATOM	4187	CG	LEU	542	52.252	53.292	58.959	1.00	28.68	A C
ATOM	4188	CD1	LEU	542	51.422	54.170	59.898	1.00	29.38	A C
ATOM	4189	CD2	LEU	542	53.017	54.165	57.979	1.00	29.52	A C
ATOM	4190	C	LEU	542	54.924	51.855	58.042	1.00	26.16	A C
ATOM	4191	O	LEU	542	55.943	52.492	58.303	1.00	28.00	A O
ATOM	4192	N	LEU	543	54.536	51.589	56.801	1.00	23.70	A N
ATOM	4193	CA	LEU	543	55.263	52.097	55.651	1.00	24.11	A C
ATOM	4194	CB	LEU	543	55.595	50.978	54.660	1.00	24.05	A C
ATOM	4195	CG	LEU	543	56.080	51.474	53.289	1.00	22.45	A C
ATOM	4196	CD1	LEU	543	57.209	52.487	53.475	1.00	24.00	A C
ATOM	4197	CD2	LEU	543	56.537	50.303	52.441	1.00	20.16	A C
ATOM	4198	C	LEU	543	54.378	53.131	54.966	1.00	24.37	A C
ATOM	4199	O	LEU	543	53.283	52.819	54.511	1.00	25.72	A O
ATOM	4200	N	LEU	544	54.857	54.362	54.896	1.00	24.80	A N
ATOM	4201	CA	LEU	544	54.098	55.436	54.278	1.00	23.74	A C
ATOM	4202	CB	LEU	544	54.424	56.757	54.979	1.00	23.92	A C
ATOM	4203	CG	LEU	544	53.640	58.003	54.581	1.00	22.62	A C
ATOM	4204	CD1	LEU	544	52.157	57.743	54.729	1.00	24.91	A C
ATOM	4205	CD2	LEU	544	54.069	59.166	55.460	1.00	24.25	A C
ATOM	4206	C	LEU	544	54.403	55.543	52.785	1.00	23.24	A C
ATOM	4207	O	LEU	544	55.451	56.053	52.400	1.00	23.44	A O
ATOM	4208	N	ASP	545	53.477	55.049	51.962	1.00	21.43	A N
ATOM	4209	CA	ASP	545	53.595	55.075	50.508	1.00	20.10	A C
ATOM	4210	CB	ASP	545	52.570	54.132	49.902	1.00	20.20	A C
ATOM	4211	CG	ASP	545	52.826	53.848	48.444	1.00	20.73	A C
ATOM	4212	OD1	ASP	545	53.175	54.790	47.699	1.00	22.69	A O
ATOM	4213	OD2	ASP	545	52.660	52.675	48.044	1.00	19.91	A O

(Continued)

FIG. 4-87

ATOM	4214	C	ASP	545	53.281	56.499	50.078	1.00	20.41	A C
ATOM	4215	O	ASP	545	52.149	56.949	50.219	1.00	21.14	A O
ATOM	4216	N	VAL	546	54.263	57.201	49.524	1.00	19.56	A N
ATOM	4217	CA	VAL	546	54.043	58.591	49.157	1.00	20.20	A C
ATOM	4218	CB	VAL	546	54.867	59.511	50.090	1.00	20.60	A C
ATOM	4219	CG1	VAL	546	54.626	60.966	49.753	1.00	20.01	A C
ATOM	4220	CG2	VAL	546	54.499	59.239	51.533	1.00	21.16	A C
ATOM	4221	C	VAL	546	54.320	59.032	47.723	1.00	20.28	A C
ATOM	4222	O	VAL	546	55.212	58.513	47.048	1.00	22.79	A O
ATOM	4223	N	TYR	547	53.524	59.994	47.267	1.00	17.64	A N
ATOM	4224	CA	TYR	547	53.702	60.604	45.957	1.00	15.73	A C
ATOM	4225	CB	TYR	547	52.653	60.155	44.952	1.00	13.49	A C
ATOM	4226	CG	TYR	547	52.969	60.718	43.589	1.00	13.89	A C
ATOM	4227	CD1	TYR	547	52.160	61.688	43.006	1.00	14.20	A C
ATOM	4228	CE1	TYR	547	52.513	62.274	41.801	1.00	13.67	A C
ATOM	4229	CD2	TYR	547	54.136	60.347	42.921	1.00	9.92	A C
ATOM	4230	CE2	TYR	547	54.492	60.926	41.726	1.00	10.35	A C
ATOM	4231	CZ	TYR	547	53.680	61.890	41.167	1.00	12.20	A C
ATOM	4232	OH	TYR	547	54.036	62.474	39.973	1.00	14.66	A O
ATOM	4233	C	TYR	547	53.522	62.076	46.266	1.00	14.99	A C
ATOM	4234	O	TYR	547	54.490	62.834	46.325	1.00	14.47	A O
ATOM	4235	N	ALA	548	52.265	62.456	46.479	1.00	14.77	A N
ATOM	4236	CA	ALA	548	51.879	63.806	46.878	1.00	12.10	A C
ATOM	4237	CB	ALA	548	52.493	64.109	48.247	1.00	9.78	A C
ATOM	4238	C	ALA	548	52.163	64.950	45.923	1.00	11.87	A C
ATOM	4239	O	ALA	548	52.250	66.094	46.346	1.00	12.24	A O
ATOM	4240	N	GLY	549	52.308	64.660	44.639	1.00	13.59	A N
ATOM	4241	CA	GLY	549	52.556	65.734	43.696	1.00	13.20	A C
ATOM	4242	C	GLY	549	51.306	66.578	43.573	1.00	13.15	A C
ATOM	4243	O	GLY	549	50.266	66.182	44.074	1.00	12.86	A O
ATOM	4244	N	PRO	550	51.365	67.745	42.915	1.00	15.91	A N
ATOM	4245	CD	PRO	550	52.533	68.380	42.280	1.00	16.15	A C
ATOM	4246	CA	PRO	550	50.174	68.592	42.776	1.00	15.03	A C
ATOM	4247	CB	PRO	550	50.693	69.794	41.989	1.00	15.29	A C
ATOM	4248	CG	PRO	550	52.145	69.838	42.325	1.00	15.06	A C
ATOM	4249	C	PRO	550	49.074	67.848	42.026	1.00	15.37	A C
ATOM	4250	O	PRO	550	49.336	67.204	41.012	1.00	16.91	A O
ATOM	4251	N	CYS	551	47.849	67.946	42.532	1.00	15.67	A N
ATOM	4252	CA	CYS	551	46.684	67.287	41.944	1.00	16.54	A C
ATOM	4253	CB	CYS	551	46.424	67.796	40.525	1.00	16.53	A C
ATOM	4254	SG	CYS	551	44.792	67.314	39.844	1.00	18.29	A S
ATOM	4255	C	CYS	551	46.811	65.766	41.925	1.00	16.83	A C
ATOM	4256	O	CYS	551	46.228	65.096	41.087	1.00	20.00	A O
ATOM	4257	N	SER	552	47.574	65.219	42.856	1.00	16.56	A N
ATOM	4258	CA	SER	552	47.742	63.785	42.933	1.00	16.35	A C
ATOM	4259	CB	SER	552	49.063	63.450	43.613	1.00	19.76	A C
ATOM	4260	OG	SER	552	49.023	63.805	44.987	1.00	20.36	A O
ATOM	4261	C	SER	552	46.602	63.202	43.760	1.00	17.72	A C
ATOM	4262	O	SER	552	45.723	63.929	44.243	1.00	17.55	A O

(Continued)

FIG. 4-88

ATOM	4263	N	GLN	553	46.632	61.885	43.926	1.00	17.07	A N
ATOM	4264	CA	GLN	553	45.628	61.179	44.699	1.00	16.87	A C
ATOM	4265	CB	GLN	553	44.301	61.090	43.937	1.00	16.43	A C
ATOM	4266	CG	GLN	553	43.249	60.292	44.695	1.00	19.53	A C
ATOM	4267	CD	GLN	553	41.844	60.468	44.163	1.00	18.87	A C
ATOM	4268	OE1	GLN	553	41.520	60.019	43.066	1.00	20.67	A O
ATOM	4269	NE2	GLN	553	40.999	61.126	44.944	1.00	18.67	A N
ATOM	4270	C	GLN	553	46.123	59.781	44.996	1.00	18.09	A C
ATOM	4271	O	GLN	553	46.088	58.915	44.129	1.00	18.25	A O
ATOM	4272	N	LYS	554	46.589	59.562	46.221	1.00	19.53	A N
ATOM	4273	CA	LYS	554	47.075	58.248	46.620	1.00	20.69	A C
ATOM	4274	CB	LYS	554	48.319	58.387	47.490	1.00	22.65	A C
ATOM	4275	CG	LYS	554	49.538	58.887	46.733	1.00	24.15	A C
ATOM	4276	CD	LYS	554	50.064	57.840	45.765	1.00	25.21	A C
ATOM	4277	CE	LYS	554	50.777	56.711	46.503	1.00	24.75	A C
ATOM	4278	NZ	LYS	554	51.472	55.796	45.560	1.00	23.89	A N
ATOM	4279	C	LYS	554	45.996	57.472	47.374	1.00	21.48	A C
ATOM	4280	O	LYS	554	46.108	56.258	47.549	1.00	22.39	A O
ATOM	4281	N	ALA	555	44.952	58.176	47.807	1.00	20.77	A N
ATOM	4282	CA	ALA	555	43.849	57.555	48.538	1.00	20.46	A C
ATOM	4283	CB	ALA	555	43.525	58.376	49.768	1.00	18.05	A C
ATOM	4284	C	ALA	555	42.611	57.436	47.643	1.00	21.32	A C
ATOM	4285	O	ALA	555	41.996	58.442	47.285	1.00	21.75	A O
ATOM	4286	N	ASP	556	42.249	56.208	47.283	1.00	21.00	A N
ATOM	4287	CA	ASP	556	41.096	55.981	46.419	1.00	20.04	A C
ATOM	4288	CB	ASP	556	41.500	56.151	44.960	1.00	20.02	A C
ATOM	4289	CG	ASP	556	42.649	55.255	44.574	1.00	19.76	A C
ATOM	4290	OD1	ASP	556	42.723	54.132	45.115	1.00	19.65	A O
ATOM	4291	OD2	ASP	556	43.470	55.666	43.723	1.00	21.90	A O
ATOM	4292	C	ASP	556	40.478	54.603	46.614	1.00	20.18	A C
ATOM	4293	O	ASP	556	40.856	53.874	47.523	1.00	19.93	A O
ATOM	4294	N	THR	557	39.542	54.246	45.736	1.00	20.55	A N
ATOM	4295	CA	THR	557	38.835	52.965	45.820	1.00	22.31	A C
ATOM	4296	CB	THR	557	37.331	53.154	45.578	1.00	21.37	A C
ATOM	4297	OG1	THR	557	37.130	53.580	44.224	1.00	21.50	A O
ATOM	4298	CG2	THR	557	36.754	54.201	46.523	1.00	21.28	A C
ATOM	4299	C	THR	557	39.294	51.898	44.826	1.00	23.72	A C
ATOM	4300	O	THR	557	38.606	50.891	44.633	1.00	25.32	A O
ATOM	4301	N	VAL	558	40.441	52.105	44.194	1.00	22.84	A N
ATOM	4302	CA	VAL	558	40.931	51.143	43.219	1.00	22.53	A C
ATOM	4303	CB	VAL	558	41.970	51.802	42.294	1.00	22.67	A C
ATOM	4304	CG1	VAL	558	42.540	50.783	41.323	1.00	19.20	A C
ATOM	4305	CG2	VAL	558	41.323	52.964	41.547	1.00	21.12	A C
ATOM	4306	C	VAL	558	41.544	49.906	43.871	1.00	23.92	A C
ATOM	4307	O	VAL	558	42.246	50.005	44.871	1.00	23.71	A O
ATOM	4308	N	PHE	559	41.261	48.734	43.312	1.00	25.05	A N
ATOM	4309	CA	PHE	559	41.815	47.492	43.841	1.00	25.45	A C
ATOM	4310	CB	PHE	559	40.855	46.326	43.584	1.00	24.60	A C
ATOM	4311	CG	PHE	559	41.476	44.977	43.808	1.00	24.75	A C

(Continued)

FIG. 4-89

ATOM	4312	CD1	PHE	559	42.192	44.352	42.799	1.00	25.70	A	C
ATOM	4313	CD2	PHE	559	41.382	44.352	45.044	1.00	25.27	A	C
ATOM	4314	CE1	PHE	559	42.810	43.118	43.021	1.00	28.04	A	C
ATOM	4315	CE2	PHE	559	41.995	43.125	45.276	1.00	24.71	A	C
ATOM	4316	CZ	PHE	559	42.709	42.507	44.266	1.00	26.38	A	C
ATOM	4317	C	PHE	559	43.158	47.210	43.170	1.00	26.14	A	C
ATOM	4318	O	PHE	559	43.250	47.246	41.943	1.00	27.21	A	O
ATOM	4319	N	ARG	560	44.188	46.912	43.962	1.00	24.72	A	N
ATOM	4320	CA	ARG	560	45.508	46.644	43.397	1.00	23.52	A	C
ATOM	4321	CB	ARG	560	46.398	47.892	43.510	1.00	20.68	A	C
ATOM	4322	CG	ARG	560	45.869	49.140	42.802	1.00	19.21	A	C
ATOM	4323	CD	ARG	560	46.885	50.285	42.869	1.00	17.64	A	C
ATOM	4324	NE	ARG	560	46.269	51.536	43.310	1.00	20.38	A	N
ATOM	4325	CZ	ARG	560	45.637	52.391	42.515	1.00	20.51	A	C
ATOM	4326	NH1	ARG	560	45.543	52.149	41.218	1.00	26.51	A	N
ATOM	4327	NH2	ARG	560	45.061	53.468	43.022	1.00	20.25	A	N
ATOM	4328	C	ARG	560	46.274	45.451	43.980	1.00	24.37	A	C
ATOM	4329	O	ARG	560	46.112	45.081	45.145	1.00	24.84	A	O
ATOM	4330	N	LEU	561	47.111	44.856	43.136	1.00	23.62	A	N
ATOM	4331	CA	LEU	561	47.968	43.740	43.511	1.00	20.95	A	C
ATOM	4332	CB	LEU	561	47.680	42.523	42.635	1.00	18.87	A	C
ATOM	4333	CG	LEU	561	46.283	41.916	42.773	1.00	20.60	A	C
ATOM	4334	CD1	LEU	561	46.139	40.749	41.803	1.00	19.75	A	C
ATOM	4335	CD2	LEU	561	46.045	41.460	44.203	1.00	17.53	A	C
ATOM	4336	C	LEU	561	49.380	44.255	43.246	1.00	20.00	A	C
ATOM	4337	O	LEU	561	49.894	44.152	42.133	1.00	20.19	A	O
ATOM	4338	N	ASN	562	49.999	44.822	44.274	1.00	18.97	A	N
ATOM	4339	CA	ASN	562	51.335	45.392	44.142	1.00	18.20	A	C
ATOM	4340	CB	ASN	562	51.197	46.907	44.028	1.00	16.72	A	C
ATOM	4341	CG	ASN	562	50.364	47.491	45.148	1.00	17.45	A	C
ATOM	4342	OD1	ASN	562	49.881	48.610	45.054	1.00	19.63	A	O
ATOM	4343	ND2	ASN	562	50.195	46.729	46.223	1.00	18.39	A	N
ATOM	4344	C	ASN	562	52.291	45.035	45.289	1.00	18.48	A	C
ATOM	4345	O	ASN	562	52.055	44.098	46.056	1.00	19.79	A	O
ATOM	4346	N	TRP	563	53.375	45.793	45.400	1.00	17.98	A	N
ATOM	4347	CA	TRP	563	54.366	45.548	46.434	1.00	17.62	A	C
ATOM	4348	CB	TRP	563	55.538	46.537	46.290	1.00	16.04	A	C
ATOM	4349	CG	TRP	563	56.741	46.249	47.178	1.00	15.76	A	C
ATOM	4350	CD2	TRP	563	57.474	47.200	47.968	1.00	13.80	A	C
ATOM	4351	CE2	TRP	563	58.526	46.500	48.602	1.00	11.13	A	C
ATOM	4352	CE3	TRP	563	57.341	48.575	48.198	1.00	13.46	A	C
ATOM	4353	CD1	TRP	563	57.367	45.041	47.361	1.00	12.65	A	C
ATOM	4354	NE1	TRP	563	58.440	45.189	48.217	1.00	11.34	A	N
ATOM	4355	CZ2	TRP	563	59.439	47.128	49.453	1.00	14.40	A	C
ATOM	4356	CZ3	TRP	563	58.252	49.204	49.046	1.00	16.29	A	C
ATOM	4357	CH2	TRP	563	59.291	48.476	49.664	1.00	14.18	A	C
ATOM	4358	C	TRP	563	53.728	45.672	47.809	1.00	17.48	A	C
ATOM	4359	O	TRP	563	54.048	44.910	48.720	1.00	18.93	A	O
ATOM	4360	N	ALA	564	52.813	46.620	47.953	1.00	16.80	A	N

(Continued)

FIG. 4-90

ATOM	4361	CA	ALA	564	52.151	46.838	49.232	1.00	17.11	A C
ATOM	4362	CB	ALA	564	51.248	48.068	49.153	1.00	16.72	A C
ATOM	4363	C	ALA	564	51.341	45.616	49.655	1.00	17.89	A C
ATOM	4364	O	ALA	564	51.322	45.256	50.834	1.00	15.94	A O
ATOM	4365	N	THR	565	50.676	44.983	48.691	1.00	18.77	A N
ATOM	4366	CA	THR	565	49.870	43.801	48.977	1.00	19.59	A C
ATOM	4367	CB	THR	565	49.368	43.131	47.689	1.00	20.01	A C
ATOM	4368	OG1	THR	565	48.606	44.069	46.922	1.00	19.76	A O
ATOM	4369	CG2	THR	565	48.496	41.922	48.027	1.00	19.34	A C
ATOM	4370	C	THR	565	50.718	42.793	49.739	1.00	21.27	A C
ATOM	4371	O	THR	565	50.290	42.252	50.760	1.00	22.29	A O
ATOM	4372	N	TYR	566	51.924	42.548	49.234	1.00	22.25	A N
ATOM	4373	CA	TYR	566	52.848	41.615	49.864	1.00	23.40	A C
ATOM	4374	CB	TYR	566	54.029	41.324	48.923	1.00	25.18	A C
ATOM	4375	CG	TYR	566	55.369	41.218	49.616	1.00	25.40	A C
ATOM	4376	CD1	TYR	566	56.297	42.262	49.547	1.00	25.62	A C
ATOM	4377	CE1	TYR	566	57.513	42.196	50.226	1.00	26.85	A C
ATOM	4378	CD2	TYR	566	55.690	40.101	50.382	1.00	26.99	A C
ATOM	4379	CE2	TYR	566	56.903	40.023	51.073	1.00	29.74	A C
ATOM	4380	CZ	TYR	566	57.809	41.074	50.991	1.00	30.16	A C
ATOM	4381	OH	TYR	566	58.997	40.998	51.688	1.00	32.61	A O
ATOM	4382	C	TYR	566	53.369	42.116	51.212	1.00	23.06	A C
ATOM	4383	O	TYR	566	53.458	41.350	52.170	1.00	21.96	A O
ATOM	4384	N	LEU	567	53.716	43.396	51.288	1.00	23.28	A N
ATOM	4385	CA	LEU	567	54.237	43.949	52.532	1.00	24.50	A C
ATOM	4386	CB	LEU	567	54.588	45.429	52.359	1.00	22.74	A C
ATOM	4387	CG	LEU	567	55.717	45.769	51.378	1.00	23.15	A C
ATOM	4388	CD1	LEU	567	55.833	47.279	51.263	1.00	20.37	A C
ATOM	4389	CD2	LEU	567	57.038	45.158	51.850	1.00	21.42	A C
ATOM	4390	C	LEU	567	53.243	43.786	53.675	1.00	26.32	A C
ATOM	4391	O	LEU	567	53.635	43.595	54.824	1.00	27.44	A O
ATOM	4392	N	ALA	568	51.955	43.857	53.361	1.00	26.96	A N
ATOM	4393	CA	ALA	568	50.930	43.712	54.383	1.00	27.44	A C
ATOM	4394	CB	ALA	568	49.684	44.481	53.984	1.00	26.54	A C
ATOM	4395	C	ALA	568	50.584	42.242	54.606	1.00	29.12	A C
ATOM	4396	O	ALA	568	50.483	41.782	55.748	1.00	28.80	A O
ATOM	4397	N	SER	569	50.417	41.506	53.509	1.00	28.58	A N
ATOM	4398	CA	SER	569	50.062	40.094	53.586	1.00	28.31	A C
ATOM	4399	CB	SER	569	49.750	39.553	52.191	1.00	28.85	A C
ATOM	4400	OG	SER	569	49.420	38.174	52.247	1.00	30.69	A O
ATOM	4401	C	SER	569	51.110	39.204	54.236	1.00	27.43	A C
ATOM	4402	O	SER	569	50.800	38.427	55.133	1.00	28.44	A O
ATOM	4403	N	THR	570	52.350	39.311	53.781	1.00	27.24	A N
ATOM	4404	CA	THR	570	53.420	38.483	54.314	1.00	27.02	A C
ATOM	4405	CB	THR	570	54.410	38.094	53.199	1.00	26.90	A C
ATOM	4406	OG1	THR	570	53.749	37.250	52.248	1.00	27.63	A O
ATOM	4407	CG2	THR	570	55.611	37.369	53.774	1.00	23.88	A C
ATOM	4408	C	THR	570	54.203	39.110	55.459	1.00	27.34	A C
ATOM	4409	O	THR	570	54.362	38.496	56.512	1.00	30.01	A O

(Continued)

FIG. 4-91

ATOM	4410	N	GLU	571	54.686	40.329	55.253	1.00	26.71	A N
ATOM	4411	CA	GLU	571	55.480	41.020	56.259	1.00	25.23	A C
ATOM	4412	CB	GLU	571	56.402	42.040	55.583	1.00	24.64	A C
ATOM	4413	CG	GLU	571	57.287	41.472	54.473	1.00	25.43	A C
ATOM	4414	CD	GLU	571	58.238	40.392	54.966	1.00	27.45	A C
ATOM	4415	OE1	GLU	571	58.582	40.421	56.164	1.00	28.11	A O
ATOM	4416	OE2	GLU	571	58.656	39.527	54.158	1.00	27.18	A O
ATOM	4417	C	GLU	571	54.643	41.715	57.329	1.00	24.50	A C
ATOM	4418	O	GLU	571	55.188	42.368	58.213	1.00	24.29	A O
ATOM	4419	N	ASN	572	53.324	41.576	57.247	1.00	24.39	A N
ATOM	4420	CA	ASN	572	52.425	42.191	58.223	1.00	24.96	A C
ATOM	4421	CB	ASN	572	52.557	41.486	59.569	1.00	25.44	A C
ATOM	4422	CG	ASN	572	52.139	40.033	59.507	1.00	29.03	A C
ATOM	4423	OD1	ASN	572	52.711	39.187	60.192	1.00	30.88	A O
ATOM	4424	ND2	ASN	572	51.128	39.734	58.694	1.00	29.67	A N
ATOM	4425	C	ASN	572	52.683	43.681	58.419	1.00	25.32	A C
ATOM	4426	O	ASN	572	52.642	44.178	59.545	1.00	25.55	A O
ATOM	4427	N	ILE	573	52.944	44.387	57.321	1.00	25.48	A N
ATOM	4428	CA	ILE	573	53.208	45.824	57.360	1.00	24.87	A C
ATOM	4429	CB	ILE	573	54.396	46.198	56.446	1.00	24.59	A C
ATOM	4430	CG2	ILE	573	54.715	47.669	56.584	1.00	22.90	A C
ATOM	4431	CG1	ILE	573	55.622	45.365	56.800	1.00	25.08	A C
ATOM	4432	CD1	ILE	573	56.805	45.636	55.900	1.00	25.36	A C
ATOM	4433	C	ILE	573	51.992	46.621	56.875	1.00	25.22	A C
ATOM	4434	O	ILE	573	51.353	46.249	55.891	1.00	24.86	A O
ATOM	4435	N	ILE	574	51.681	47.718	57.557	1.00	24.59	A N
ATOM	4436	CA	ILE	574	50.557	48.555	57.159	1.00	26.14	A C
ATOM	4437	CB	ILE	574	49.926	49.297	58.359	1.00	25.88	A C
ATOM	4438	CG2	ILE	574	48.798	50.190	57.874	1.00	26.06	A C
ATOM	4439	CG1	ILE	574	49.399	48.304	59.386	1.00	27.36	A C
ATOM	4440	CD1	ILE	574	48.794	48.968	60.607	1.00	29.19	A C
ATOM	4441	C	ILE	574	51.064	49.619	56.191	1.00	27.12	A C
ATOM	4442	O	ILE	574	51.799	50.524	56.591	1.00	28.97	A O
ATOM	4443	N	VAL	575	50.683	49.521	54.924	1.00	25.92	A N
ATOM	4444	CA	VAL	575	51.128	50.517	53.962	1.00	24.87	A C
ATOM	4445	CB	VAL	575	51.387	49.904	52.569	1.00	24.76	A C
ATOM	4446	CG1	VAL	575	51.973	50.966	51.644	1.00	20.17	A C
ATOM	4447	CG2	VAL	575	52.320	48.707	52.690	1.00	22.12	A C
ATOM	4448	C	VAL	575	50.054	51.585	53.837	1.00	25.21	A C
ATOM	4449	O	VAL	575	48.929	51.312	53.405	1.00	25.63	A O
ATOM	4450	N	ALA	576	50.403	52.804	54.216	1.00	23.75	A N
ATOM	4451	CA	ALA	576	49.456	53.893	54.152	1.00	23.56	A C
ATOM	4452	CB	ALA	576	49.255	54.477	55.540	1.00	23.43	A C
ATOM	4453	C	ALA	576	49.879	54.988	53.180	1.00	24.06	A C
ATOM	4454	O	ALA	576	51.056	55.139	52.860	1.00	22.16	A O
ATOM	4455	N	SER	577	48.888	55.740	52.710	1.00	24.49	A N
ATOM	4456	CA	SER	577	49.095	56.852	51.796	1.00	23.11	A C
ATOM	4457	CB	SER	577	48.793	56.428	50.362	1.00	23.06	A C
ATOM	4458	OG	SER	577	49.750	55.475	49.921	1.00	22.88	A O

(Continued)

FIG. 4-92

ATOM	4459	C	SER	577	48.149	57.947	52.248	1.00	22.90	A	C
ATOM	4460	O	SER	577	47.075	57.662	52.768	1.00	24.22	A	O
ATOM	4461	N	PHE	578	48.546	59.196	52.046	1.00	23.49	A	N
ATOM	4462	CA	PHE	578	47.748	60.337	52.479	1.00	21.77	A	C
ATOM	4463	CB	PHE	578	48.313	60.829	53.804	1.00	21.41	A	C
ATOM	4464	CG	PHE	578	47.585	62.005	54.383	1.00	22.79	A	C
ATOM	4465	CD1	PHE	578	46.429	61.820	55.144	1.00	20.60	A	C
ATOM	4466	CD2	PHE	578	48.080	63.291	54.209	1.00	19.79	A	C
ATOM	4467	CE1	PHE	578	45.783	62.901	55.730	1.00	21.26	A	C
ATOM	4468	CE2	PHE	578	47.441	64.381	54.790	1.00	20.94	A	C
ATOM	4469	CZ	PHE	578	46.288	64.186	55.556	1.00	20.70	A	C
ATOM	4470	C	PHE	578	47.723	61.502	51.480	1.00	21.14	A	C
ATOM	4471	O	PHE	578	48.766	61.909	50.973	1.00	21.08	A	O
ATOM	4472	N	ASP	579	46.533	62.041	51.212	1.00	19.89	A	N
ATOM	4473	CA	ASP	579	46.389	63.173	50.302	1.00	18.01	A	C
ATOM	4474	CB	ASP	579	45.191	62.985	49.371	1.00	17.01	A	C
ATOM	4475	CG	ASP	579	45.334	61.777	48.455	1.00	21.86	A	C
ATOM	4476	OD1	ASP	579	46.424	61.583	47.873	1.00	22.87	A	O
ATOM	4477	OD2	ASP	579	44.342	61.024	48.299	1.00	23.17	A	O
ATOM	4478	C	ASP	579	46.211	64.474	51.092	1.00	18.10	A	C
ATOM	4479	O	ASP	579	45.103	64.823	51.493	1.00	20.42	A	O
ATOM	4480	N	GLY	580	47.306	65.189	51.313	1.00	17.22	A	N
ATOM	4481	CA	GLY	580	47.238	66.439	52.044	1.00	15.14	A	C
ATOM	4482	C	GLY	580	47.065	67.610	51.098	1.00	16.53	A	C
ATOM	4483	O	GLY	580	46.544	67.462	49.993	1.00	17.18	A	O
ATOM	4484	N	ARG	581	47.495	68.786	51.528	1.00	15.90	A	N
ATOM	4485	CA	ARG	581	47.377	69.970	50.701	1.00	15.52	A	C
ATOM	4486	CB	ARG	581	47.956	71.172	51.444	1.00	16.17	A	C
ATOM	4487	CG	ARG	581	47.072	71.645	52.585	1.00	16.05	A	C
ATOM	4488	CD	ARG	581	47.756	72.653	53.467	1.00	14.87	A	C
ATOM	4489	NE	ARG	581	48.617	71.990	54.441	1.00	18.25	A	N
ATOM	4490	CZ	ARG	581	49.321	72.624	55.375	1.00	19.44	A	C
ATOM	4491	NH1	ARG	581	49.268	73.952	55.463	1.00	20.41	A	N
ATOM	4492	NH2	ARG	581	50.075	71.933	56.224	1.00	15.76	A	N
ATOM	4493	C	ARG	581	48.107	69.742	49.386	1.00	17.75	A	C
ATOM	4494	O	ARG	581	49.193	69.158	49.357	1.00	17.49	A	O
ATOM	4495	N	GLY	582	47.495	70.192	48.295	1.00	18.96	A	N
ATOM	4496	CA	GLY	582	48.094	70.022	46.987	1.00	17.63	A	C
ATOM	4497	C	GLY	582	47.511	68.842	46.231	1.00	18.54	A	C
ATOM	4498	O	GLY	582	47.673	68.757	45.017	1.00	18.99	A	O
ATOM	4499	N	SER	583	46.842	67.923	46.925	1.00	18.00	A	N
ATOM	4500	CA	SER	583	46.258	66.765	46.247	1.00	18.46	A	C
ATOM	4501	CB	SER	583	45.842	65.700	47.269	1.00	18.34	A	C
ATOM	4502	OG	SER	583	45.058	66.253	48.303	1.00	19.12	A	O
ATOM	4503	C	SER	583	45.068	67.218	45.392	1.00	18.03	A	C
ATOM	4504	O	SER	583	44.601	68.344	45.536	1.00	17.42	A	O
ATOM	4505	N	GLY	584	44.570	66.355	44.510	1.00	17.84	A	N
ATOM	4506	CA	GLY	584	43.481	66.779	43.637	1.00	19.22	A	C
ATOM	4507	C	GLY	584	42.052	66.293	43.827	1.00	19.49	A	C

(Continued)

FIG. 4-93

ATOM	4508	O	GLY	584	41.724	65.570	44.767	1.00 21.57	A	O
ATOM	4509	N	TYR	585	41.191	66.735	42.917	1.00 19.76	A	N
ATOM	4510	CA	TYR	585	39.782	66.362	42.906	1.00 18.53	A	C
ATOM	4511	CB	TYR	585	39.673	64.859	42.663	1.00 18.57	A	C
ATOM	4512	CG	TYR	585	40.578	64.401	41.550	1.00 18.83	A	C
ATOM	4513	CD1	TYR	585	40.439	64.914	40.260	1.00 19.48	A	C
ATOM	4514	CE1	TYR	585	41.300	64.533	39.235	1.00 18.11	A	C
ATOM	4515	CD2	TYR	585	41.606	63.490	41.789	1.00 19.81	A	C
ATOM	4516	CE2	TYR	585	42.476	63.100	40.769	1.00 17.71	A	C
ATOM	4517	CZ	TYR	585	42.313	63.626	39.497	1.00 18.76	A	C
ATOM	4518	OH	TYR	585	43.150	63.232	38.481	1.00 20.70	A	O
ATOM	4519	C	TYR	585	38.997	66.751	44.152	1.00 18.81	A	C
ATOM	4520	O	TYR	585	38.046	66.067	44.521	1.00 17.85	A	O
ATOM	4521	N	GLN	586	39.382	67.861	44.783	1.00 20.25	A	N
ATOM	4522	CA	GLN	586	38.708	68.345	45.986	1.00 20.04	A	C
ATOM	4523	CB	GLN	586	39.455	67.886	47.233	1.00 20.09	A	C
ATOM	4524	CG	GLN	586	39.770	66.412	47.279	1.00 20.60	A	C
ATOM	4525	CD	GLN	586	40.781	66.095	48.363	1.00 24.77	A	C
ATOM	4526	OE1	GLN	586	40.441	66.029	49.548	1.00 23.60	A	O
ATOM	4527	NE2	GLN	586	42.044	65.919	47.962	1.00 25.12	A	N
ATOM	4528	C	GLN	586	38.619	69.869	46.024	1.00 22.06	A	C
ATOM	4529	O	GLN	586	38.424	70.455	47.092	1.00 23.83	A	O
ATOM	4530	N	GLY	587	38.783	70.518	44.877	1.00 21.79	A	N
ATOM	4531	CA	GLY	587	38.707	71.969	44.853	1.00 21.24	A	C
ATOM	4532	C	GLY	587	40.073	72.623	44.883	1.00 21.56	A	C
ATOM	4533	O	GLY	587	41.033	72.035	45.364	1.00 23.11	A	O
ATOM	4534	N	ASP	588	40.154	73.856	44.397	1.00 21.25	A	N
ATOM	4535	CA	ASP	588	41.415	74.580	44.339	1.00 22.09	A	C
ATOM	4536	CB	ASP	588	41.287	75.763	43.382	1.00 22.35	A	C
ATOM	4537	CG	ASP	588	40.944	75.340	41.965	1.00 25.14	A	C
ATOM	4538	OD1	ASP	588	40.465	76.213	41.211	1.00 25.77	A	O
ATOM	4539	OD2	ASP	588	41.157	74.155	41.599	1.00 24.41	A	O
ATOM	4540	C	ASP	588	41.955	75.079	45.675	1.00 23.08	A	C
ATOM	4541	O	ASP	588	43.121	75.471	45.762	1.00 22.71	A	O
ATOM	4542	N	LYS	589	41.130	75.086	46.716	1.00 23.77	A	N
ATOM	4543	CA	LYS	589	41.620	75.562	47.998	1.00 22.97	A	C
ATOM	4544	CB	LYS	589	40.509	75.616	49.037	1.00 24.26	A	C
ATOM	4545	CG	LYS	589	40.994	76.173	50.365	1.00 29.68	A	C
ATOM	4546	CD	LYS	589	39.916	76.141	51.439	1.00 35.08	A	C
ATOM	4547	CE	LYS	589	40.457	76.638	52.784	1.00 36.09	A	C
ATOM	4548	NZ	LYS	589	39.461	76.464	53.881	1.00 36.83	A	N
ATOM	4549	C	LYS	589	42.705	74.611	48.468	1.00 22.93	A	C
ATOM	4550	O	LYS	589	43.711	75.032	49.033	1.00 23.71	A	O
ATOM	4551	N	ILE	590	42.494	73.326	48.217	1.00 21.82	A	N
ATOM	4552	CA	ILE	590	43.444	72.302	48.607	1.00 21.76	A	C
ATOM	4553	CB	ILE	590	42.737	70.956	48.846	1.00 20.55	A	C
ATOM	4554	CG2	ILE	590	43.756	69.841	48.934	1.00 19.40	A	C
ATOM	4555	CG1	ILE	590	41.901	71.025	50.126	1.00 21.94	A	C
ATOM	4556	CD1	ILE	590	41.200	69.720	50.478	1.00 22.22	A	C

(Continued)

FIG. 4-94

ATOM	4557	C	ILE	590	44.537	72.093	47.562	1.00	22.32	A C
ATOM	4558	O	ILE	590	45.711	71.960	47.901	1.00	23.51	A O
ATOM	4559	N	MET	591	44.157	72.071	46.291	1.00	21.59	A N
ATOM	4560	CA	MET	591	45.127	71.846	45.232	1.00	21.59	A C
ATOM	4561	CB	MET	591	44.406	71.567	43.917	1.00	21.80	A C
ATOM	4562	CG	MET	591	45.309	71.000	42.838	1.00	21.85	A C
ATOM	4563	SD	MET	591	44.403	70.746	41.309	1.00	22.76	A S
ATOM	4564	CE	MET	591	44.237	72.436	40.732	1.00	22.84	A C
ATOM	4565	C	MET	591	46.112	72.997	45.051	1.00	21.43	A C
ATOM	4566	O	MET	591	47.289	72.771	44.791	1.00	19.25	A O
ATOM	4567	N	HIS	592	45.636	74.228	45.200	1.00	21.21	A N
ATOM	4568	CA	HIS	592	46.502	75.386	45.035	1.00	21.43	A C
ATOM	4569	CB	HIS	592	45.713	76.560	44.455	1.00	22.32	A C
ATOM	4570	CG	HIS	592	45.296	76.361	43.032	1.00	24.65	A C
ATOM	4571	CD2	HIS	592	45.604	75.390	42.139	1.00	26.25	A C
ATOM	4572	ND1	HIS	592	44.471	77.243	42.368	1.00	25.75	A N
ATOM	4573	CE1	HIS	592	44.289	76.825	41.128	1.00	25.99	A C
ATOM	4574	NE2	HIS	592	44.965	75.703	40.962	1.00	25.78	A N
ATOM	4575	C	HIS	592	47.197	75.817	46.319	1.00	21.38	A C
ATOM	4576	O	HIS	592	47.842	76.865	46.362	1.00	20.84	A O
ATOM	4577	N	ALA	593	47.076	75.012	47.367	1.00	21.76	A N
ATOM	4578	CA	ALA	593	47.732	75.349	48.628	1.00	20.43	A C
ATOM	4579	CB	ALA	593	47.360	74.349	49.710	1.00	18.24	A C
ATOM	4580	C	ALA	593	49.241	75.361	48.427	1.00	19.92	A C
ATOM	4581	O	ALA	593	49.940	76.126	49.081	1.00	21.91	A O
ATOM	4582	N	ILE	594	49.736	74.522	47.518	1.00	19.47	A N
ATOM	4583	CA	ILE	594	51.176	74.446	47.248	1.00	20.49	A C
ATOM	4584	CB	ILE	594	51.617	73.021	46.816	1.00	19.36	A C
ATOM	4585	CG2	ILE	594	51.467	72.051	47.966	1.00	19.38	A C
ATOM	4586	CG1	ILE	594	50.814	72.581	45.590	1.00	21.33	A C
ATOM	4587	CD1	ILE	594	50.951	71.106	45.243	1.00	22.55	A C
ATOM	4588	C	ILE	594	51.658	75.410	46.169	1.00	19.88	A C
ATOM	4589	O	ILE	594	52.849	75.434	45.854	1.00	17.79	A O
ATOM	4590	N	ASN	595	50.746	76.200	45.606	1.00	20.03	A N
ATOM	4591	CA	ASN	595	51.119	77.137	44.547	1.00	21.76	A C
ATOM	4592	CB	ASN	595	49.977	78.114	44.265	1.00	20.68	A C
ATOM	4593	CG	ASN	595	50.300	79.072	43.128	1.00	21.80	A C
ATOM	4594	OD1	ASN	595	50.640	78.652	42.024	1.00	22.78	A O
ATOM	4595	ND2	ASN	595	50.191	80.364	43.394	1.00	22.74	A N
ATOM	4596	C	ASN	595	52.395	77.921	44.860	1.00	22.25	A C
ATOM	4597	O	ASN	595	52.442	78.688	45.824	1.00	22.44	A O
ATOM	4598	N	ARG	596	53.421	77.715	44.031	1.00	22.52	A N
ATOM	4599	CA	ARG	596	54.726	78.378	44.171	1.00	22.41	A C
ATOM	4600	CB	ARG	596	54.550	79.898	44.141	1.00	21.28	A C
ATOM	4601	CG	ARG	596	53.894	80.426	42.880	1.00	21.31	A C
ATOM	4602	CD	ARG	596	53.398	81.856	43.096	1.00	22.01	A C
ATOM	4603	NE	ARG	596	54.479	82.760	43.482	1.00	20.88	A N
ATOM	4604	CZ	ARG	596	55.467	83.112	42.671	1.00	21.35	A C
ATOM	4605	NH1	ARG	596	55.498	82.635	41.431	1.00	22.62	A N

(Continued)

FIG. 4-95

ATOM	4606	NH2	ARG	596	56.427	83.924	43.096	1.00	19.92	A	N
ATOM	4607	C	ARG	596	55.492	77.982	45.440	1.00	21.53	A	C
ATOM	4608	O	ARG	596	56.482	78.611	45.804	1.00	20.59	A	O
ATOM	4609	N	ARG	597	55.046	76.930	46.107	1.00	21.66	A	N
ATOM	4610	CA	ARG	597	55.705	76.512	47.331	1.00	21.98	A	C
ATOM	4611	CB	ARG	597	54.943	77.061	48.539	1.00	23.55	A	C
ATOM	4612	CG	ARG	597	55.184	78.547	48.776	1.00	28.20	A	C
ATOM	4613	CD	ARG	597	56.611	78.813	49.264	1.00	30.86	A	C
ATOM	4614	NE	ARG	597	56.891	80.239	49.414	1.00	34.81	A	N
ATOM	4615	CZ	ARG	597	57.074	81.088	48.401	1.00	36.01	A	C
ATOM	4616	NH1	ARG	597	57.011	80.670	47.142	1.00	33.57	A	N
ATOM	4617	NH2	ARG	597	57.326	82.365	48.650	1.00	37.36	A	N
ATOM	4618	C	ARG	597	55.869	75.011	47.458	1.00	20.79	A	C
ATOM	4619	O	ARG	597	55.523	74.423	48.487	1.00	20.19	A	O
ATOM	4620	N	LEU	598	56.400	74.398	46.404	1.00	19.44	A	N
ATOM	4621	CA	LEU	598	56.649	72.963	46.387	1.00	18.48	A	C
ATOM	4622	CB	LEU	598	57.142	72.545	45.003	1.00	18.20	A	C
ATOM	4623	CG	LEU	598	56.119	72.007	43.994	1.00	19.27	A	C
ATOM	4624	CD1	LEU	598	54.800	72.731	44.107	1.00	19.49	A	C
ATOM	4625	CD2	LEU	598	56.691	72.135	42.595	1.00	18.24	A	C
ATOM	4626	C	LEU	598	57.692	72.617	47.450	1.00	19.10	A	C
ATOM	4627	O	LEU	598	58.644	73.363	47.679	1.00	19.27	A	O
ATOM	4628	N	GLY	599	57.506	71.485	48.108	1.00	19.24	A	N
ATOM	4629	CA	GLY	599	58.440	71.090	49.138	1.00	20.34	A	C
ATOM	4630	C	GLY	599	58.055	71.622	50.508	1.00	21.76	A	C
ATOM	4631	O	GLY	599	58.882	71.640	51.422	1.00	23.58	A	O
ATOM	4632	N	THR	600	56.811	72.061	50.666	1.00	21.02	A	N
ATOM	4633	CA	THR	600	56.381	72.578	51.958	1.00	21.20	A	C
ATOM	4634	CB	THR	600	56.039	74.082	51.874	1.00	21.28	A	C
ATOM	4635	OG1	THR	600	54.887	74.271	51.052	1.00	25.68	A	O
ATOM	4636	CG2	THR	600	57.192	74.856	51.264	1.00	21.23	A	C
ATOM	4637	C	THR	600	55.201	71.810	52.557	1.00	21.38	A	C
ATOM	4638	O	THR	600	55.386	70.724	53.100	1.00	22.42	A	O
ATOM	4639	N	PHE	601	53.993	72.356	52.446	1.00	21.18	A	N
ATOM	4640	CA	PHE	601	52.809	71.721	53.022	1.00	22.09	A	C
ATOM	4641	CB	PHE	601	51.540	72.498	52.649	1.00	24.93	A	C
ATOM	4642	CG	PHE	601	51.556	73.935	53.077	1.00	26.21	A	C
ATOM	4643	CD1	PHE	601	51.052	74.923	52.236	1.00	28.07	A	C
ATOM	4644	CD2	PHE	601	52.105	74.308	54.299	1.00	26.83	A	C
ATOM	4645	CE1	PHE	601	51.100	76.271	52.603	1.00	29.10	A	C
ATOM	4646	CE2	PHE	601	52.160	75.650	54.680	1.00	28.02	A	C
ATOM	4647	CZ	PHE	601	51.658	76.636	53.830	1.00	28.61	A	C
ATOM	4648	C	PHE	601	52.623	70.265	52.635	1.00	22.45	A	C
ATOM	4649	O	PHE	601	52.235	69.451	53.470	1.00	22.89	A	O
ATOM	4650	N	GLU	602	52.884	69.931	51.374	1.00	22.76	A	N
ATOM	4651	CA	GLU	602	52.712	68.556	50.931	1.00	21.82	A	C
ATOM	4652	CB	GLU	602	52.956	68.418	49.422	1.00	22.43	A	C
ATOM	4653	CG	GLU	602	54.396	68.559	48.974	1.00	27.44	A	C
ATOM	4654	CD	GLU	602	54.872	70.002	48.893	1.00	29.71	A	C

(Continued)

FIG. 4-96

ATOM	4655	OE1	GLU	602	54.751	70.743	49.891	1.00	31.66	A	O
ATOM	4656	OE2	GLU	602	55.379	70.392	47.822	1.00	31.46	A	O
ATOM	4657	C	GLU	602	53.663	67.657	51.698	1.00	21.67	A	C
ATOM	4658	O	GLU	602	53.386	66.473	51.899	1.00	22.33	A	O
ATOM	4659	N	VAL	603	54.777	68.229	52.146	1.00	20.78	A	N
ATOM	4660	CA	VAL	603	55.772	67.468	52.897	1.00	20.76	A	C
ATOM	4661	CB	VAL	603	57.159	68.133	52.800	1.00	18.99	A	C
ATOM	4662	CG1	VAL	603	58.165	67.365	53.649	1.00	15.00	A	C
ATOM	4663	CG2	VAL	603	57.603	68.193	51.335	1.00	15.21	A	C
ATOM	4664	C	VAL	603	55.368	67.350	54.364	1.00	21.85	A	C
ATOM	4665	O	VAL	603	55.373	66.265	54.946	1.00	20.44	A	O
ATOM	4666	N	GLU	604	55.009	68.481	54.951	1.00	24.70	A	N
ATOM	4667	CA	GLU	604	54.594	68.518	56.341	1.00	27.84	A	C
ATOM	4668	CB	GLU	604	54.322	69.964	56.770	1.00	30.83	A	C
ATOM	4669	CG	GLU	604	55.572	70.808	56.924	1.00	37.92	A	C
ATOM	4670	CD	GLU	604	56.449	70.355	58.091	1.00	43.63	A	C
ATOM	4671	OE1	GLU	604	57.505	70.989	58.328	1.00	46.30	A	O
ATOM	4672	OE2	GLU	604	56.083	69.368	58.773	1.00	45.85	A	O
ATOM	4673	C	GLU	604	53.349	67.669	56.553	1.00	27.28	A	C
ATOM	4674	O	GLU	604	53.270	66.909	57.517	1.00	28.68	A	O
ATOM	4675	N	ASP	605	52.381	67.786	55.650	1.00	25.92	A	N
ATOM	4676	CA	ASP	605	51.151	67.021	55.785	1.00	25.72	A	C
ATOM	4677	CB	ASP	605	50.144	67.436	54.713	1.00	24.61	A	C
ATOM	4678	CG	ASP	605	49.576	68.832	54.963	1.00	23.36	A	C
ATOM	4679	OD1	ASP	605	48.677	69.267	54.215	1.00	23.15	A	O
ATOM	4680	OD2	ASP	605	50.036	69.499	55.914	1.00	21.27	A	O
ATOM	4681	C	ASP	605	51.379	65.515	55.783	1.00	26.18	A	C
ATOM	4682	O	ASP	605	50.646	64.779	56.439	1.00	28.35	A	O
ATOM	4683	N	GLN	606	52.394	65.051	55.063	1.00	26.16	A	N
ATOM	4684	CA	GLN	606	52.704	63.627	55.056	1.00	25.29	A	C
ATOM	4685	CB	GLN	606	53.788	63.302	54.026	1.00	24.18	A	C
ATOM	4686	CG	GLN	606	53.305	63.332	52.596	1.00	24.92	A	C
ATOM	4687	CD	GLN	606	52.206	62.321	52.330	1.00	24.81	A	C
ATOM	4688	OE1	GLN	606	52.373	61.122	52.560	1.00	25.31	A	O
ATOM	4689	NE2	GLN	606	51.075	62.801	51.840	1.00	25.44	A	N
ATOM	4690	C	GLN	606	53.207	63.268	56.447	1.00	25.47	A	C
ATOM	4691	O	GLN	606	52.838	62.238	57.002	1.00	25.15	A	O
ATOM	4692	N	ILE	607	54.059	64.129	57.001	1.00	26.84	A	N
ATOM	4693	CA	ILE	607	54.607	63.915	58.337	1.00	28.30	A	C
ATOM	4694	CB	ILE	607	55.639	65.002	58.702	1.00	28.21	A	C
ATOM	4695	CG2	ILE	607	56.165	64.778	60.116	1.00	26.82	A	C
ATOM	4696	CG1	ILE	607	56.789	64.977	57.694	1.00	29.86	A	C
ATOM	4697	CD1	ILE	607	57.796	66.086	57.881	1.00	28.34	A	C
ATOM	4698	C	ILE	607	53.470	63.963	59.355	1.00	29.50	A	C
ATOM	4699	O	ILE	607	53.359	63.093	60.226	1.00	27.80	A	O
ATOM	4700	N	GLU	608	52.619	64.978	59.239	1.00	30.32	A	N
ATOM	4701	CA	GLU	608	51.508	65.099	60.164	1.00	32.21	A	C
ATOM	4702	CB	GLU	608	50.705	66.379	59.919	1.00	33.05	A	C
ATOM	4703	CG	GLU	608	49.578	66.581	60.936	1.00	34.99	A	C

(Continued)

FIG. 4-97

ATOM	4704	CD	GLU	608	50.054	66.482	62.389	1.00	38.42	A	C
ATOM	4705	OE1	GLU	608	49.197	66.454	63.302	1.00	37.67	A	O
ATOM	4706	OE2	GLU	608	51.285	66.435	62.625	1.00	40.64	A	O
ATOM	4707	C	GLU	608	50.606	63.891	60.012	1.00	32.76	A	C
ATOM	4708	O	GLU	608	49.889	63.527	60.947	1.00	33.47	A	O
ATOM	4709	N	ALA	609	50.643	63.270	58.836	1.00	31.32	A	N
ATOM	4710	CA	ALA	609	49.827	62.090	58.595	1.00	30.73	A	C
ATOM	4711	CB	ALA	609	49.883	61.682	57.123	1.00	28.50	A	C
ATOM	4712	C	ALA	609	50.355	60.968	59.472	1.00	30.16	A	C
ATOM	4713	O	ALA	609	49.583	60.274	60.139	1.00	31.03	A	O
ATOM	4714	N	ALA	610	51.674	60.803	59.479	1.00	29.26	A	N
ATOM	4715	CA	ALA	610	52.310	59.758	60.274	1.00	28.48	A	C
ATOM	4716	CB	ALA	610	53.826	59.818	60.114	1.00	27.67	A	C
ATOM	4717	C	ALA	610	51.930	59.886	61.743	1.00	27.62	A	C
ATOM	4718	O	ALA	610	51.556	58.904	62.379	1.00	28.43	A	O
ATOM	4719	N	ARG	611	52.025	61.094	62.282	1.00	26.94	A	N
ATOM	4720	CA	ARG	611	51.674	61.309	63.678	1.00	28.98	A	C
ATOM	4721	CB	ARG	611	51.812	62.787	64.042	1.00	28.96	A	C
ATOM	4722	CG	ARG	611	53.239	63.291	64.032	1.00	29.26	A	C
ATOM	4723	CD	ARG	611	53.281	64.799	64.187	1.00	29.92	A	C
ATOM	4724	NE	ARG	611	54.641	65.322	64.102	1.00	28.90	A	N
ATOM	4725	CZ	ARG	611	54.980	66.384	63.378	1.00	29.97	A	C
ATOM	4726	NH1	ARG	611	54.055	67.028	62.680	1.00	31.41	A	N
ATOM	4727	NH2	ARG	611	56.237	66.802	63.347	1.00	29.57	A	N
ATOM	4728	C	ARG	611	50.242	60.846	63.923	1.00	29.90	A	C
ATOM	4729	O	ARG	611	49.983	60.084	64.856	1.00	31.08	A	O
ATOM	4730	N	GLN	612	49.319	61.298	63.076	1.00	30.18	A	N
ATOM	4731	CA	GLN	612	47.916	60.922	63.195	1.00	30.42	A	C
ATOM	4732	CB	GLN	612	47.108	61.497	62.035	1.00	30.55	A	C
ATOM	4733	CG	GLN	612	47.112	63.001	61.964	1.00	33.70	A	C
ATOM	4734	CD	GLN	612	46.446	63.637	63.162	1.00	34.91	A	C
ATOM	4735	OE1	GLN	612	45.276	63.379	63.444	1.00	35.03	A	O
ATOM	4736	NE2	GLN	612	47.188	64.475	63.875	1.00	35.30	A	N
ATOM	4737	C	GLN	612	47.740	59.405	63.223	1.00	30.70	A	C
ATOM	4738	O	GLN	612	46.993	58.878	64.049	1.00	31.56	A	O
ATOM	4739	N	PHE	613	48.415	58.698	62.324	1.00	30.50	A	N
ATOM	4740	CA	PHE	613	48.291	57.248	62.301	1.00	32.33	A	C
ATOM	4741	CB	PHE	613	49.043	56.653	61.114	1.00	31.37	A	C
ATOM	4742	CG	PHE	613	48.537	57.126	59.787	1.00	30.49	A	C
ATOM	4743	CD1	PHE	613	47.167	57.171	59.529	1.00	30.03	A	C
ATOM	4744	CD2	PHE	613	49.423	57.523	58.793	1.00	28.11	A	C
ATOM	4745	CE1	PHE	613	46.687	57.604	58.300	1.00	29.96	A	C
ATOM	4746	CE2	PHE	613	48.954	57.959	57.559	1.00	28.75	A	C
ATOM	4747	CZ	PHE	613	47.585	58.001	57.309	1.00	28.70	A	C
ATOM	4748	C	PHE	613	48.835	56.679	63.597	1.00	34.28	A	C
ATOM	4749	O	PHE	613	48.327	55.677	64.107	1.00	34.47	A	O
ATOM	4750	N	SER	614	49.865	57.326	64.134	1.00	35.61	A	N
ATOM	4751	CA	SER	614	50.454	56.884	65.388	1.00	37.88	A	C
ATOM	4752	CB	SER	614	51.723	57.677	65.683	1.00	38.32	A	C

(Continued)

FIG. 4-98

ATOM	4753	OG	SER	614	52.686	57.477	64.663	1.00	38.53	A O
ATOM	4754	C	SER	614	49.424	57.098	66.494	1.00	39.76	A C
ATOM	4755	O	SER	614	49.283	56.276	67.398	1.00	41.47	A O
ATOM	4756	N	LYS	615	48.694	58.204	66.413	1.00	40.51	A N
ATOM	4757	CA	LYS	615	47.663	58.490	67.400	1.00	41.32	A C
ATOM	4758	CB	LYS	615	47.047	59.870	67.155	1.00	42.73	A C
ATOM	4759	CG	LYS	615	47.884	61.040	67.642	1.00	44.59	A C
ATOM	4760	CD	LYS	615	47.064	62.330	67.631	1.00	46.18	A C
ATOM	4761	CE	LYS	615	47.864	63.511	68.168	1.00	46.73	A C
ATOM	4762	NZ	LYS	615	48.314	63.301	69.577	1.00	48.03	A N
ATOM	4763	C	LYS	615	46.552	57.441	67.347	1.00	40.86	A C
ATOM	4764	O	LYS	615	45.794	57.285	68.303	1.00	41.94	A O
ATOM	4765	N	MET	616	46.456	56.724	66.230	1.00	39.78	A N
ATOM	4766	CA	MET	616	45.418	55.712	66.065	1.00	37.88	A C
ATOM	4767	CB	MET	616	45.246	55.374	64.578	1.00	37.42	A C
ATOM	4768	CG	MET	616	44.673	56.532	63.768	1.00	35.95	A C
ATOM	4769	SD	MET	616	44.195	56.101	62.079	1.00	35.73	A S
ATOM	4770	CE	MET	616	43.946	57.730	61.385	1.00	34.06	A C
ATOM	4771	C	MET	616	45.654	54.447	66.885	1.00	36.90	A C
ATOM	4772	O	MET	616	44.908	53.473	66.772	1.00	37.22	A O
ATOM	4773	N	GLY	617	46.706	54.469	67.698	1.00	35.15	A N
ATOM	4774	CA	GLY	617	47.013	53.355	68.578	1.00	32.74	A C
ATOM	4775	C	GLY	617	47.445	51.995	68.065	1.00	32.72	A C
ATOM	4776	O	GLY	617	47.806	51.143	68.872	1.00	33.71	A O
ATOM	4777	N	PHE	618	47.409	51.751	66.761	1.00	32.52	A N
ATOM	4778	CA	PHE	618	47.841	50.447	66.262	1.00	31.36	A C
ATOM	4779	CB	PHE	618	46.701	49.759	65.496	1.00	31.10	A C
ATOM	4780	CG	PHE	618	46.047	50.624	64.457	1.00	31.61	A C
ATOM	4781	CD1	PHE	618	46.743	51.025	63.322	1.00	31.30	A C
ATOM	4782	CD2	PHE	618	44.724	51.027	64.607	1.00	30.93	A C
ATOM	4783	CE1	PHE	618	46.129	51.815	62.349	1.00	31.53	A C
ATOM	4784	CE2	PHE	618	44.104	51.814	63.642	1.00	30.94	A C
ATOM	4785	CZ	PHE	618	44.808	52.209	62.509	1.00	29.86	A C
ATOM	4786	C	PHE	618	49.109	50.521	65.404	1.00	30.95	A C
ATOM	4787	O	PHE	618	49.303	49.735	64.477	1.00	30.95	A O
ATOM	4788	N	VAL	619	49.982	51.465	65.732	1.00	30.23	A N
ATOM	4789	CA	VAL	619	51.226	51.627	64.996	1.00	29.99	A C
ATOM	4790	CB	VAL	619	51.226	52.928	64.147	1.00	29.39	A C
ATOM	4791	CG1	VAL	619	52.632	53.200	63.617	1.00	28.74	A C
ATOM	4792	CG2	VAL	619	50.248	52.804	62.994	1.00	26.48	A C
ATOM	4793	C	VAL	619	52.425	51.673	65.931	1.00	29.66	A C
ATOM	4794	O	VAL	619	52.400	52.342	66.962	1.00	30.05	A O
ATOM	4795	N	ASP	620	53.475	50.954	65.561	1.00	29.84	A N
ATOM	4796	CA	ASP	620	54.695	50.932	66.347	1.00	29.07	A C
ATOM	4797	CB	ASP	620	55.563	49.748	65.924	1.00	27.94	A C
ATOM	4798	CG	ASP	620	56.789	49.587	66.794	1.00	27.02	A C
ATOM	4799	OD1	ASP	620	57.191	50.580	67.439	1.00	26.38	A O
ATOM	4800	OD2	ASP	620	57.358	48.473	66.818	1.00	25.22	A O
ATOM	4801	C	ASP	620	55.408	52.243	66.039	1.00	30.30	A C

(Continued)

FIG. 4-99

ATOM	4802	O	ASP	620	56.009	52.398	64.979	1.00	29.95	A	O
ATOM	4803	N	ASN	621	55.330	53.196	66.958	1.00	33.01	A	N
ATOM	4804	CA	ASN	621	55.962	54.492	66.746	1.00	35.15	A	C
ATOM	4805	CB	ASN	621	55.761	55.376	67.975	1.00	38.29	A	C
ATOM	4806	CG	ASN	621	56.420	54.804	69.214	1.00	43.03	A	C
ATOM	4807	OD1	ASN	621	57.648	54.821	69.346	1.00	44.79	A	O
ATOM	4808	ND2	ASN	621	55.606	54.280	70.130	1.00	45.61	A	N
ATOM	4809	C	ASN	621	57.453	54.370	66.441	1.00	35.20	A	C
ATOM	4810	O	ASN	621	58.083	55.330	66.004	1.00	34.67	A	O
ATOM	4811	N	LYS	622	58.016	53.186	66.660	1.00	36.30	A	N
ATOM	4812	CA	LYS	622	59.439	52.977	66.418	1.00	35.70	A	C
ATOM	4813	CB	LYS	622	60.030	52.027	67.464	1.00	37.42	A	C
ATOM	4814	CG	LYS	622	60.148	52.611	68.866	1.00	39.14	A	C
ATOM	4815	CD	LYS	622	60.763	51.584	69.804	1.00	43.05	A	C
ATOM	4816	CE	LYS	622	60.839	52.077	71.240	1.00	45.27	A	C
ATOM	4817	NZ	LYS	622	61.516	51.077	72.123	1.00	45.73	A	N
ATOM	4818	C	LYS	622	59.762	52.445	65.036	1.00	34.38	A	C
ATOM	4819	O	LYS	622	60.896	52.572	64.571	1.00	35.67	A	O
ATOM	4820	N	ARG	623	58.783	51.846	64.374	1.00	31.86	A	N
ATOM	4821	CA	ARG	623	59.030	51.308	63.046	1.00	29.60	A	C
ATOM	4822	CB	ARG	623	58.821	49.791	63.058	1.00	29.94	A	C
ATOM	4823	CG	ARG	623	59.767	49.071	64.009	1.00	32.12	A	C
ATOM	4824	CD	ARG	623	59.117	47.832	64.614	1.00	33.42	A	C
ATOM	4825	NE	ARG	623	59.247	46.663	63.758	1.00	34.25	A	N
ATOM	4826	CZ	ARG	623	58.457	45.601	63.833	1.00	34.36	A	C
ATOM	4827	NH1	ARG	623	57.476	45.572	64.725	1.00	35.41	A	N
ATOM	4828	NH2	ARG	623	58.655	44.571	63.021	1.00	33.15	A	N
ATOM	4829	C	ARG	623	58.179	51.957	61.962	1.00	27.66	A	C
ATOM	4830	O	ARG	623	57.315	51.313	61.363	1.00	27.44	A	O
ATOM	4831	N	ILE	624	58.425	53.241	61.720	1.00	25.16	A	N
ATOM	4832	CA	ILE	624	57.708	53.977	60.685	1.00	24.70	A	C
ATOM	4833	CB	ILE	624	57.114	55.298	61.224	1.00	24.52	A	C
ATOM	4834	CG2	ILE	624	56.391	56.025	60.107	1.00	23.47	A	C
ATOM	4835	CG1	ILE	624	56.136	55.021	62.371	1.00	24.01	A	C
ATOM	4836	CD1	ILE	624	55.473	56.277	62.936	1.00	19.15	A	C
ATOM	4837	C	ILE	624	58.667	54.311	59.532	1.00	24.37	A	C
ATOM	4838	O	ILE	624	59.651	55.034	59.709	1.00	23.38	A	O
ATOM	4839	N	ALA	625	58.384	53.768	58.356	1.00	22.58	A	N
ATOM	4840	CA	ALA	625	59.213	54.014	57.189	1.00	21.00	A	C
ATOM	4841	CB	ALA	625	59.650	52.693	56.579	1.00	20.21	A	C
ATOM	4842	C	ALA	625	58.430	54.833	56.168	1.00	21.28	A	C
ATOM	4843	O	ALA	625	57.209	54.966	56.275	1.00	21.90	A	O
ATOM	4844	N	ILE	626	59.135	55.385	55.185	1.00	19.63	A	N
ATOM	4845	CA	ILE	626	58.502	56.178	54.137	1.00	18.63	A	C
ATOM	4846	CB	ILE	626	58.589	57.699	54.446	1.00	18.98	A	C
ATOM	4847	CG2	ILE	626	60.032	58.103	54.694	1.00	18.36	A	C
ATOM	4848	CG1	ILE	626	57.973	58.501	53.296	1.00	19.11	A	C
ATOM	4849	CD1	ILE	626	57.872	59.991	53.562	1.00	18.34	A	C
ATOM	4850	C	ILE	626	59.185	55.882	52.809	1.00	17.48	A	C

(Continued)

FIG. 4-100

ATOM	4851	O	ILE	626	60.380	55.619	52.776	1.00	17.10	A	O
ATOM	4852	N	TRP	627	58.425	55.893	51.719	1.00	17.62	A	N
ATOM	4853	CA	TRP	627	58.998	55.622	50.409	1.00	17.62	A	C
ATOM	4854	CB	TRP	627	59.190	54.118	50.206	1.00	16.80	A	C
ATOM	4855	CG	TRP	627	58.096	53.441	49.427	1.00	18.70	A	C
ATOM	4856	CD2	TRP	627	58.139	53.055	48.044	1.00	17.58	A	C
ATOM	4857	CE2	TRP	627	56.912	52.425	47.749	1.00	17.70	A	C
ATOM	4858	CE3	TRP	627	59.095	53.179	47.028	1.00	15.10	A	C
ATOM	4859	CD1	TRP	627	56.879	53.047	49.895	1.00	18.68	A	C
ATOM	4860	NE1	TRP	627	56.163	52.435	48.896	1.00	18.72	A	N
ATOM	4861	CZ2	TRP	627	56.617	51.916	46.480	1.00	16.42	A	C
ATOM	4862	CZ3	TRP	627	58.801	52.673	45.769	1.00	14.48	A	C
ATOM	4863	CH2	TRP	627	57.575	52.048	45.507	1.00	14.63	A	C
ATOM	4864	C	TRP	627	58.157	56.191	49.275	1.00	18.48	A	C
ATOM	4865	O	TRP	627	56.934	56.280	49.381	1.00	18.15	A	O
ATOM	4866	N	GLY	628	58.829	56.579	48.193	1.00	18.70	A	N
ATOM	4867	CA	GLY	628	58.140	57.146	47.049	1.00	18.30	A	C
ATOM	4868	C	GLY	628	58.986	57.163	45.787	1.00	18.36	A	C
ATOM	4869	O	GLY	628	60.212	57.065	45.833	1.00	19.07	A	O
ATOM	4870	N	TRP	629	58.312	57.300	44.654	1.00	17.25	A	N
ATOM	4871	CA	TRP	629	58.945	57.322	43.343	1.00	15.27	A	C
ATOM	4872	CB	TRP	629	58.306	56.214	42.494	1.00	10.48	A	C
ATOM	4873	CG	TRP	629	59.131	55.698	41.357	1.00	10.84	A	C
ATOM	4874	CD2	TRP	629	59.512	54.335	41.122	1.00	9.02	A	C
ATOM	4875	CE2	TRP	629	60.243	54.310	39.914	1.00	10.87	A	C
ATOM	4876	CE3	TRP	629	59.312	53.135	41.818	1.00	9.31	A	C
ATOM	4877	CD1	TRP	629	59.635	56.422	40.313	1.00	10.72	A	C
ATOM	4878	NE1	TRP	629	60.299	55.595	39.443	1.00	10.74	A	N
ATOM	4879	CZ2	TRP	629	60.779	53.126	39.379	1.00	12.40	A	C
ATOM	4880	CZ3	TRP	629	59.842	51.959	41.295	1.00	11.95	A	C
ATOM	4881	CH2	TRP	629	60.571	51.965	40.080	1.00	13.29	A	C
ATOM	4882	C	TRP	629	58.671	58.722	42.753	1.00	15.91	A	C
ATOM	4883	O	TRP	629	57.622	59.300	43.012	1.00	15.58	A	O
ATOM	4884	N	SER	630	59.612	59.269	41.983	1.00	16.99	A	N
ATOM	4885	CA	SER	630	59.453	60.603	41.383	1.00	16.78	A	C
ATOM	4886	CB	SER	630	58.258	60.644	40.421	1.00	18.65	A	C
ATOM	4887	OG	SER	630	58.531	59.987	39.198	1.00	22.38	A	O
ATOM	4888	C	SER	630	59.234	61.656	42.450	1.00	16.69	A	C
ATOM	4889	O	SER	630	60.076	61.856	43.321	1.00	17.90	A	O
ATOM	4890	N	TYR	631	58.093	62.335	42.368	1.00	17.21	A	N
ATOM	4891	CA	TYR	631	57.737	63.362	43.335	1.00	15.51	A	C
ATOM	4892	CB	TYR	631	56.380	63.969	42.981	1.00	17.16	A	C
ATOM	4893	CG	TYR	631	56.161	65.353	43.545	1.00	18.38	A	C
ATOM	4894	CD1	TYR	631	55.947	65.550	44.909	1.00	18.79	A	C
ATOM	4895	CE1	TYR	631	55.741	66.826	45.429	1.00	19.48	A	C
ATOM	4896	CD2	TYR	631	56.168	66.470	42.714	1.00	18.85	A	C
ATOM	4897	CE2	TYR	631	55.963	67.751	43.226	1.00	19.30	A	C
ATOM	4898	CZ	TYR	631	55.748	67.918	44.580	1.00	19.21	A	C
ATOM	4899	OH	TYR	631	55.520	69.173	45.084	1.00	20.71	A	O

(Continued)

FIG. 4-101

ATOM	4900	C	TYR	631	57.672	62.632	44.668	1.00	15.27	A	C
ATOM	4901	O	TYR	631	57.946	63.201	45.731	1.00	13.23	A	O
ATOM	4902	N	GLY	632	57.324	61.350	44.592	1.00	14.83	A	N
ATOM	4903	CA	GLY	632	57.266	60.529	45.783	1.00	15.04	A	C
ATOM	4904	C	GLY	632	58.653	60.477	46.394	1.00	14.53	A	C
ATOM	4905	O	GLY	632	58.816	60.652	47.596	1.00	13.85	A	O
ATOM	4906	N	GLY	633	59.655	60.246	45.551	1.00	15.63	A	N
ATOM	4907	CA	GLY	633	61.030	60.185	46.014	1.00	14.69	A	C
ATOM	4908	C	GLY	633	61.500	61.513	46.576	1.00	15.25	A	C
ATOM	4909	O	GLY	633	62.251	61.561	47.555	1.00	16.82	A	O
ATOM	4910	N	TYR	634	61.058	62.598	45.954	1.00	13.67	A	N
ATOM	4911	CA	TYR	634	61.418	63.940	46.398	1.00	13.29	A	C
ATOM	4912	CB	TYR	634	60.901	64.964	45.397	1.00	11.67	A	C
ATOM	4913	CG	TYR	634	60.914	66.382	45.904	1.00	12.54	A	C
ATOM	4914	CD1	TYR	634	62.112	67.069	46.072	1.00	13.46	A	C
ATOM	4915	CE1	TYR	634	62.125	68.398	46.484	1.00	13.37	A	C
ATOM	4916	CD2	TYR	634	59.723	67.057	46.173	1.00	11.38	A	C
ATOM	4917	CE2	TYR	634	59.727	68.383	46.586	1.00	11.86	A	C
ATOM	4918	CZ	TYR	634	60.933	69.049	46.734	1.00	12.83	A	C
ATOM	4919	OH	TYR	634	60.957	70.375	47.091	1.00	12.97	A	O
ATOM	4920	C	TYR	634	60.829	64.240	47.778	1.00	14.36	A	C
ATOM	4921	O	TYR	634	61.524	64.721	48.672	1.00	16.28	A	O
ATOM	4922	N	VAL	635	59.542	63.968	47.949	1.00	14.99	A	N
ATOM	4923	CA	VAL	635	58.899	64.218	49.231	1.00	15.44	A	C
ATOM	4924	CB	VAL	635	57.364	64.025	49.135	1.00	15.15	A	C
ATOM	4925	CG1	VAL	635	56.743	63.988	50.524	1.00	14.56	A	C
ATOM	4926	CG2	VAL	635	56.758	65.167	48.326	1.00	12.62	A	C
ATOM	4927	C	VAL	635	59.486	63.296	50.294	1.00	16.48	A	C
ATOM	4928	O	VAL	635	59.681	63.711	51.439	1.00	16.89	A	O
ATOM	4929	N	THR	636	59.779	62.054	49.917	1.00	16.16	A	N
ATOM	4930	CA	THR	636	60.368	61.098	50.855	1.00	18.40	A	C
ATOM	4931	CB	THR	636	60.701	59.746	50.175	1.00	18.30	A	C
ATOM	4932	OG1	THR	636	59.504	59.130	49.696	1.00	20.57	A	O
ATOM	4933	CG2	THR	636	61.362	58.807	51.157	1.00	20.48	A	C
ATOM	4934	C	THR	636	61.676	61.676	51.396	1.00	19.91	A	C
ATOM	4935	O	THR	636	61.914	61.696	52.609	1.00	19.58	A	O
ATOM	4936	N	SER	637	62.524	62.141	50.483	1.00	19.89	A	N
ATOM	4937	CA	SER	637	63.804	62.711	50.862	1.00	20.30	A	C
ATOM	4938	CB	SER	637	64.599	63.086	49.614	1.00	19.17	A	C
ATOM	4939	OG	SER	637	64.823	61.952	48.800	1.00	19.07	A	O
ATOM	4940	C	SER	637	63.615	63.938	51.749	1.00	21.61	A	C
ATOM	4941	O	SER	637	64.235	64.049	52.812	1.00	22.54	A	O
ATOM	4942	N	MET	638	62.760	64.855	51.309	1.00	21.06	A	N
ATOM	4943	CA	MET	638	62.490	66.074	52.066	1.00	21.87	A	C
ATOM	4944	CB	MET	638	61.417	66.895	51.354	1.00	20.36	A	C
ATOM	4945	CG	MET	638	61.876	67.465	50.032	1.00	21.23	A	C
ATOM	4946	SD	MET	638	63.069	68.787	50.261	1.00	21.33	A	S
ATOM	4947	CE	MET	638	62.006	70.229	50.125	1.00	19.31	A	C
ATOM	4948	C	MET	638	62.039	65.748	53.494	1.00	21.51	A	C

(Continued)

FIG. 4-102

ATOM	4949	O	MET	638	62.511	66.351	54.472	1.00	19.64	A	O
ATOM	4950	N	VAL	639	61.116	64.798	53.600	1.00	19.63	A	N
ATOM	4951	CA	VAL	639	60.611	64.372	54.891	1.00	20.04	A	C
ATOM	4952	CB	VAL	639	59.524	63.287	54.746	1.00	20.08	A	C
ATOM	4953	CG1	VAL	639	59.201	62.688	56.112	1.00	20.55	A	C
ATOM	4954	CG2	VAL	639	58.275	63.879	54.108	1.00	17.95	A	C
ATOM	4955	C	VAL	639	61.758	63.793	55.692	1.00	20.25	A	C
ATOM	4956	O	VAL	639	61.986	64.185	56.831	1.00	23.11	A	O
ATOM	4957	N	LEU	640	62.489	62.864	55.088	1.00	20.83	A	N
ATOM	4958	CA	LEU	640	63.608	62.225	55.765	1.00	22.08	A	C
ATOM	4959	CB	LEU	640	64.245	61.179	54.855	1.00	22.31	A	C
ATOM	4960	CG	LEU	640	63.400	59.939	54.570	1.00	21.31	A	C
ATOM	4961	CD1	LEU	640	64.143	59.041	53.611	1.00	22.16	A	C
ATOM	4962	CD2	LEU	640	63.105	59.205	55.863	1.00	22.25	A	C
ATOM	4963	C	LEU	640	64.675	63.212	56.239	1.00	23.38	A	C
ATOM	4964	O	LEU	640	65.416	62.922	57.182	1.00	22.99	A	O
ATOM	4965	N	GLY	641	64.745	64.374	55.592	1.00	23.16	A	N
ATOM	4966	CA	GLY	641	65.731	65.368	55.972	1.00	23.10	A	C
ATOM	4967	C	GLY	641	65.153	66.555	56.721	1.00	23.73	A	C
ATOM	4968	O	GLY	641	65.782	67.609	56.802	1.00	23.94	A	O
ATOM	4969	N	SER	642	63.958	66.393	57.278	1.00	22.74	A	N
ATOM	4970	CA	SER	642	63.318	67.484	58.002	1.00	20.76	A	C
ATOM	4971	CB	SER	642	61.798	67.370	57.883	1.00	19.77	A	C
ATOM	4972	OG	SER	642	61.319	66.213	58.546	1.00	17.97	A	O
ATOM	4973	C	SER	642	63.723	67.488	59.471	1.00	21.73	A	C
ATOM	4974	O	SER	642	63.656	68.519	60.140	1.00	21.40	A	O
ATOM	4975	N	GLY	643	64.136	66.327	59.967	1.00	22.24	A	N
ATOM	4976	CA	GLY	643	64.548	66.213	61.350	1.00	22.64	A	C
ATOM	4977	C	GLY	643	63.407	65.944	62.314	1.00	23.74	A	C
ATOM	4978	O	GLY	643	63.585	66.064	63.528	1.00	25.32	A	O
ATOM	4979	N	SER	644	62.244	65.573	61.786	1.00	23.53	A	N
ATOM	4980	CA	SER	644	61.067	65.301	62.616	1.00	23.38	A	C
ATOM	4981	CB	SER	644	59.850	64.995	61.742	1.00	24.79	A	C
ATOM	4982	OG	SER	644	59.898	63.666	61.247	1.00	24.45	A	O
ATOM	4983	C	SER	644	61.287	64.129	63.559	1.00	23.18	A	C
ATOM	4984	O	SER	644	60.565	63.961	64.536	1.00	24.28	A	O
ATOM	4985	N	GLY	645	62.278	63.307	63.258	1.00	23.27	A	N
ATOM	4986	CA	GLY	645	62.543	62.166	64.107	1.00	24.80	A	C
ATOM	4987	C	GLY	645	61.398	61.175	64.114	1.00	24.80	A	C
ATOM	4988	O	GLY	645	61.379	60.248	64.920	1.00	27.93	A	O
ATOM	4989	N	VAL	646	60.446	61.357	63.207	1.00	23.98	A	N
ATOM	4990	CA	VAL	646	59.289	60.474	63.121	1.00	22.32	A	C
ATOM	4991	CB	VAL	646	58.092	61.207	62.473	1.00	24.36	A	C
ATOM	4992	CG1	VAL	646	56.945	60.230	62.215	1.00	22.37	A	C
ATOM	4993	CG2	VAL	646	57.636	62.351	63.381	1.00	24.11	A	C
ATOM	4994	C	VAL	646	59.552	59.202	62.327	1.00	21.28	A	C
ATOM	4995	O	VAL	646	59.079	58.128	62.690	1.00	21.25	A	O
ATOM	4996	N	PHE	647	60.303	59.326	61.239	1.00	21.00	A	N
ATOM	4997	CA	PHE	647	60.593	58.182	60.380	1.00	18.33	A	C

(Continued)

FIG. 4-103

ATOM	4998	CB	PHE	647	60.497	58.615	58.924	1.00	15.79	A	C
ATOM	4999	CG	PHE	647	59.142	59.131	58.551	1.00	16.11	A	C
ATOM	5000	CD1	PHE	647	58.138	58.258	58.152	1.00	15.39	A	C
ATOM	5001	CD2	PHE	647	58.841	60.479	58.680	1.00	14.43	A	C
ATOM	5002	CE1	PHE	647	56.855	58.722	57.894	1.00	13.82	A	C
ATOM	5003	CE2	PHE	647	57.562	60.943	58.423	1.00	15.28	A	C
ATOM	5004	CZ	PHE	647	56.568	60.061	58.031	1.00	13.75	A	C
ATOM	5005	C	PHE	647	61.944	57.555	60.663	1.00	18.46	A	C
ATOM	5006	O	PHE	647	62.943	58.250	60.825	1.00	20.84	A	O
ATOM	5007	N	LYS	648	61.958	56.232	60.722	1.00	17.11	A	N
ATOM	5008	CA	LYS	648	63.165	55.480	60.996	1.00	19.06	A	C
ATOM	5009	CB	LYS	648	62.789	54.105	61.545	1.00	17.86	A	C
ATOM	5010	CG	LYS	648	63.961	53.242	61.955	1.00	17.94	A	C
ATOM	5011	CD	LYS	648	63.484	51.869	62.405	1.00	19.57	A	C
ATOM	5012	CE	LYS	648	64.594	51.083	63.095	1.00	19.22	A	C
ATOM	5013	NZ	LYS	648	65.757	50.894	62.204	1.00	20.59	A	N
ATOM	5014	C	LYS	648	64.025	55.314	59.747	1.00	21.47	A	C
ATOM	5015	O	LYS	648	65.251	55.379	59.815	1.00	23.13	A	O
ATOM	5016	N	CYS	649	63.376	55.094	58.610	1.00	22.38	A	N
ATOM	5017	CA	CYS	649	64.077	54.898	57.353	1.00	24.23	A	C
ATOM	5018	C	CYS	649	63.156	55.237	56.181	1.00	24.09	A	C
ATOM	5019	O	CYS	649	61.939	55.319	56.342	1.00	23.94	A	O
ATOM	5020	CB	CYS	649	64.527	53.447	57.237	1.00	27.68	A	C
ATOM	5021	SG	CYS	649	63.130	52.287	57.313	1.00	32.05	A	S
ATOM	5022	N	GLY	650	63.746	55.426	55.004	1.00	21.50	A	N
ATOM	5023	CA	GLY	650	62.961	55.757	53.834	1.00	21.04	A	C
ATOM	5024	C	GLY	650	63.649	55.384	52.535	1.00	21.13	A	C
ATOM	5025	O	GLY	650	64.874	55.333	52.474	1.00	21.62	A	O
ATOM	5026	N	ILE	651	62.857	55.124	51.499	1.00	19.35	A	N
ATOM	5027	CA	ILE	651	63.388	54.753	50.195	1.00	19.18	A	C
ATOM	5028	CB	ILE	651	62.896	53.352	49.758	1.00	19.03	A	C
ATOM	5029	CG2	ILE	651	63.601	52.933	48.481	1.00	17.31	A	C
ATOM	5030	CG1	ILE	651	63.173	52.326	50.853	1.00	19.60	A	C
ATOM	5031	CD1	ILE	651	62.827	50.901	50.456	1.00	18.48	A	C
ATOM	5032	C	ILE	651	62.953	55.749	49.120	1.00	19.53	A	C
ATOM	5033	O	ILE	651	61.758	56.015	48.949	1.00	19.77	A	O
ATOM	5034	N	ALA	652	63.925	56.292	48.393	1.00	18.34	A	N
ATOM	5035	CA	ALA	652	63.633	57.240	47.324	1.00	15.69	A	C
ATOM	5036	CB	ALA	652	64.323	58.574	47.594	1.00	14.05	A	C
ATOM	5037	C	ALA	652	64.107	56.662	45.996	1.00	14.98	A	C
ATOM	5038	O	ALA	652	65.288	56.367	45.827	1.00	14.12	A	O
ATOM	5039	N	VAL	653	63.175	56.487	45.064	1.00	14.68	A	N
ATOM	5040	CA	VAL	653	63.492	55.963	43.738	1.00	14.84	A	C
ATOM	5041	CB	VAL	653	62.582	54.754	43.366	1.00	17.41	A	C
ATOM	5042	CG1	VAL	653	62.865	54.291	41.932	1.00	14.95	A	C
ATOM	5043	CG2	VAL	653	62.806	53.607	44.352	1.00	18.10	A	C
ATOM	5044	C	VAL	653	63.292	57.063	42.694	1.00	13.22	A	C
ATOM	5045	O	VAL	653	62.224	57.669	42.620	1.00	11.12	A	O
ATOM	5046	N	ALA	654	64.331	57.317	41.901	1.00	12.68	A	N

(Continued)

FIG. 4-104

ATOM	5047	CA	ALA	654	64.289	58.327	40.845	1.00	10.68	A	C
ATOM	5048	CB	ALA	654	63.513	57.790	39.650	1.00	7.27	A	C
ATOM	5049	C	ALA	654	63.653	59.607	41.352	1.00	10.02	A	C
ATOM	5050	O	ALA	654	62.687	60.103	40.787	1.00	13.18	A	O
ATOM	5051	N	PRO	655	64.208	60.179	42.420	1.00	10.68	A	N
ATOM	5052	CD	PRO	655	65.319	59.696	43.262	1.00	8.01	A	C
ATOM	5053	CA	PRO	655	63.643	61.408	42.971	1.00	10.40	A	C
ATOM	5054	CB	PRO	655	64.092	61.344	44.422	1.00	8.50	A	C
ATOM	5055	CG	PRO	655	65.476	60.822	44.277	1.00	6.23	A	C
ATOM	5056	C	PRO	655	64.090	62.714	42.327	1.00	12.92	A	C
ATOM	5057	O	PRO	655	65.166	62.793	41.717	1.00	13.38	A	O
ATOM	5058	N	VAL	656	63.245	63.735	42.454	1.00	12.39	A	N
ATOM	5059	CA	VAL	656	63.612	65.065	41.999	1.00	12.85	A	C
ATOM	5060	CB	VAL	656	62.373	65.946	41.769	1.00	11.42	A	C
ATOM	5061	CG1	VAL	656	62.781	67.416	41.645	1.00	10.52	A	C
ATOM	5062	CG2	VAL	656	61.661	65.500	40.510	1.00	10.18	A	C
ATOM	5063	C	VAL	656	64.382	65.560	43.236	1.00	13.79	A	C
ATOM	5064	O	VAL	656	64.038	65.188	44.355	1.00	14.63	A	O
ATOM	5065	N	SER	657	65.419	66.372	43.066	1.00	14.27	A	N
ATOM	5066	CA	SER	657	66.174	66.831	44.238	1.00	14.99	A	C
ATOM	5067	CB	SER	657	67.589	66.231	44.231	1.00	15.67	A	C
ATOM	5068	OG	SER	657	68.385	66.819	43.213	1.00	15.19	A	O
ATOM	5069	C	SER	657	66.286	68.343	44.320	1.00	14.77	A	C
ATOM	5070	O	SER	657	66.387	68.912	45.406	1.00	14.39	A	O
ATOM	5071	N	ARG	658	66.269	68.978	43.158	1.00	15.05	A	N
ATOM	5072	CA	ARG	658	66.388	70.423	43.038	1.00	16.33	A	C
ATOM	5073	CB	ARG	658	67.845	70.787	42.747	1.00	20.44	A	C
ATOM	5074	CG	ARG	658	68.142	72.274	42.582	1.00	24.34	A	C
ATOM	5075	CD	ARG	658	69.543	72.450	42.025	1.00	25.38	A	C
ATOM	5076	NE	ARG	658	69.905	73.838	41.757	1.00	25.70	A	N
ATOM	5077	CZ	ARG	658	70.353	74.683	42.676	1.00	28.34	A	C
ATOM	5078	NH1	ARG	658	70.491	74.288	43.935	1.00	28.23	A	N
ATOM	5079	NH2	ARG	658	70.690	75.916	42.329	1.00	29.55	A	N
ATOM	5080	C	ARG	658	65.515	70.775	41.850	1.00	15.87	A	C
ATOM	5081	O	ARG	658	65.752	70.288	40.735	1.00	16.75	A	O
ATOM	5082	N	TRP	659	64.514	71.616	42.073	1.00	13.52	A	N
ATOM	5083	CA	TRP	659	63.603	71.967	40.999	1.00	13.69	A	C
ATOM	5084	CB	TRP	659	62.465	72.823	41.550	1.00	13.63	A	C
ATOM	5085	CG	TRP	659	61.504	71.963	42.341	1.00	17.48	A	C
ATOM	5086	CD2	TRP	659	60.690	70.898	41.829	1.00	16.63	A	C
ATOM	5087	CE2	TRP	659	60.027	70.313	42.927	1.00	18.08	A	C
ATOM	5088	CE3	TRP	659	60.460	70.382	40.547	1.00	16.21	A	C
ATOM	5089	CD1	TRP	659	61.300	71.980	43.692	1.00	17.21	A	C
ATOM	5090	NE1	TRP	659	60.418	70.993	44.050	1.00	17.37	A	N
ATOM	5091	CZ2	TRP	659	59.145	69.233	42.785	1.00	21.55	A	C
ATOM	5092	CZ3	TRP	659	59.584	69.311	40.403	1.00	18.00	A	C
ATOM	5093	CH2	TRP	659	58.937	68.746	41.516	1.00	20.15	A	C
ATOM	5094	C	TRP	659	64.219	72.580	39.748	1.00	13.15	A	C
ATOM	5095	O	TRP	659	63.643	72.503	38.670	1.00	11.17	A	O

(Continued)

FIG. 4-105

ATOM	5096	N	GLU	660	65.400	73.163	39.871	1.00	14.12	A N
ATOM	5097	CA	GLU	660	66.042	73.725	38.697	1.00	15.96	A C
ATOM	5098	CB	GLU	660	67.147	74.704	39.108	1.00	16.83	A C
ATOM	5099	CG	GLU	660	66.548	76.001	39.626	1.00	19.65	A C
ATOM	5100	CD	GLU	660	67.535	76.901	40.313	1.00	22.71	A C
ATOM	5101	OE1	GLU	660	68.310	77.600	39.617	1.00	25.18	A O
ATOM	5102	OE2	GLU	660	67.527	76.907	41.561	1.00	23.59	A O
ATOM	5103	C	GLU	660	66.577	72.635	37.777	1.00	15.29	A C
ATOM	5104	O	GLU	660	67.001	72.922	36.659	1.00	16.67	A O
ATOM	5105	N	TYR	661	66.539	71.383	38.233	1.00	14.54	A N
ATOM	5106	CA	TYR	661	67.003	70.269	37.399	1.00	14.57	A C
ATOM	5107	CB	TYR	661	67.642	69.154	38.230	1.00	13.59	A C
ATOM	5108	CG	TYR	661	68.878	69.504	39.035	1.00	15.73	A C
ATOM	5109	CD1	TYR	661	69.743	70.531	38.655	1.00	13.37	A C
ATOM	5110	CE1	TYR	661	70.889	70.805	39.390	1.00	12.74	A C
ATOM	5111	CD2	TYR	661	69.199	68.765	40.166	1.00	16.63	A C
ATOM	5112	CE2	TYR	661	70.338	69.027	40.898	1.00	16.03	A C
ATOM	5113	CZ	TYR	661	71.183	70.041	40.515	1.00	13.47	A C
ATOM	5114	OH	TYR	661	72.322	70.252	41.267	1.00	8.43	A O
ATOM	5115	C	TYR	661	65.842	69.637	36.608	1.00	15.74	A C
ATOM	5116	O	TYR	661	66.077	68.854	35.675	1.00	13.97	A O
ATOM	5117	N	TYR	662	64.602	69.963	36.984	1.00	13.28	A N
ATOM	5118	CA	TYR	662	63.445	69.390	36.308	1.00	13.00	A C
ATOM	5119	CB	TYR	662	62.305	69.143	37.308	1.00	14.01	A C
ATOM	5120	CG	TYR	662	61.395	68.026	36.862	1.00	14.50	A C
ATOM	5121	CD1	TYR	662	60.010	68.199	36.802	1.00	15.74	A C
ATOM	5122	CE1	TYR	662	59.184	67.201	36.273	1.00	14.99	A C
ATOM	5123	CD2	TYR	662	61.930	66.825	36.400	1.00	14.83	A C
ATOM	5124	CE2	TYR	662	61.122	65.830	35.873	1.00	15.13	A C
ATOM	5125	CZ	TYR	662	59.756	66.024	35.804	1.00	15.11	A C
ATOM	5126	OH	TYR	662	58.983	65.060	35.214	1.00	17.05	A O
ATOM	5127	C	TYR	662	62.964	70.251	35.135	1.00	12.46	A C
ATOM	5128	O	TYR	662	63.320	71.423	35.030	1.00	12.22	A O
ATOM	5129	N	ASP	663	62.147	69.673	34.260	1.00	12.09	A N
ATOM	5130	CA	ASP	663	61.686	70.394	33.076	1.00	13.20	A C
ATOM	5131	CB	ASP	663	60.998	69.427	32.099	1.00	11.88	A C
ATOM	5132	CG	ASP	663	59.668	68.925	32.606	1.00	13.51	A C
ATOM	5133	OD1	ASP	663	59.476	67.692	32.633	1.00	14.06	A O
ATOM	5134	OD2	ASP	663	58.809	69.758	32.962	1.00	11.87	A O
ATOM	5135	C	ASP	663	60.807	71.625	33.300	1.00	13.03	A C
ATOM	5136	O	ASP	663	60.036	71.713	34.260	1.00	12.71	A O
ATOM	5137	N	SER	664	60.945	72.576	32.383	1.00	12.83	A N
ATOM	5138	CA	SER	664	60.210	73.829	32.425	1.00	13.80	A C
ATOM	5139	CB	SER	664	60.433	74.600	31.120	1.00	14.92	A C
ATOM	5140	OG	SER	664	59.996	73.851	30.000	1.00	14.78	A O
ATOM	5141	C	SER	664	58.715	73.688	32.674	1.00	13.35	A C
ATOM	5142	O	SER	664	58.234	73.974	33.762	1.00	15.82	A O
ATOM	5143	N	VAL	665	57.987	73.247	31.658	1.00	13.43	A N
ATOM	5144	CA	VAL	665	56.540	73.101	31.733	1.00	14.34	A C

FIG. 4-106 (Continued)

ATOM	5145	CB	VAL	665	56.027	72.182	30.602	1.00	14.98	A	C
ATOM	5146	CG1	VAL	665	54.496	72.131	30.615	1.00	15.10	A	C
ATOM	5147	CG2	VAL	665	56.537	72.690	29.263	1.00	13.19	A	C
ATOM	5148	C	VAL	665	55.972	72.620	33.070	1.00	14.50	A	C
ATOM	5149	O	VAL	665	55.153	73.302	33.677	1.00	14.33	A	O
ATOM	5150	N	TYR	666	56.392	71.452	33.534	1.00	15.45	A	N
ATOM	5151	CA	TYR	666	55.876	70.948	34.801	1.00	17.06	A	C
ATOM	5152	CB	TYR	666	56.323	69.501	35.038	1.00	15.58	A	C
ATOM	5153	CG	TYR	666	55.839	68.903	36.349	1.00	13.94	A	C
ATOM	5154	CD1	TYR	666	54.692	68.119	36.395	1.00	14.70	A	C
ATOM	5155	CE1	TYR	666	54.276	67.517	37.577	1.00	13.28	A	C
ATOM	5156	CD2	TYR	666	56.560	69.080	37.534	1.00	13.77	A	C
ATOM	5157	CE2	TYR	666	56.154	68.482	38.727	1.00	12.27	A	C
ATOM	5158	CZ	TYR	666	55.012	67.700	38.737	1.00	15.52	A	C
ATOM	5159	OH	TYR	666	54.609	67.072	39.896	1.00	18.37	A	O
ATOM	5160	C	TYR	666	56.297	71.796	35.998	1.00	17.89	A	C
ATOM	5161	O	TYR	666	55.451	72.200	36.795	1.00	19.29	A	O
ATOM	5162	N	THR	667	57.592	72.066	36.125	1.00	17.90	A	N
ATOM	5163	CA	THR	667	58.092	72.833	37.265	1.00	19.74	A	C
ATOM	5164	CB	THR	667	59.621	72.953	37.251	1.00	18.84	A	C
ATOM	5165	OG1	THR	667	60.206	71.675	36.968	1.00	20.18	A	O
ATOM	5166	CG2	THR	667	60.108	73.441	38.604	1.00	17.74	A	C
ATOM	5167	C	THR	667	57.537	74.246	37.339	1.00	21.44	A	C
ATOM	5168	O	THR	667	56.916	74.635	38.333	1.00	21.51	A	O
ATOM	5169	N	GLU	668	57.778	75.011	36.280	1.00	21.85	A	N
ATOM	5170	CA	GLU	668	57.330	76.389	36.200	1.00	21.18	A	C
ATOM	5171	CB	GLU	668	57.746	76.976	34.859	1.00	20.69	A	C
ATOM	5172	CG	GLU	668	59.251	77.096	34.703	1.00	20.20	A	C
ATOM	5173	CD	GLU	668	59.657	77.559	33.322	1.00	19.55	A	C
ATOM	5174	OE1	GLU	668	58.783	78.068	32.588	1.00	19.49	A	O
ATOM	5175	OE2	GLU	668	60.851	77.422	32.977	1.00	18.34	A	O
ATOM	5176	C	GLU	668	55.828	76.517	36.394	1.00	21.50	A	C
ATOM	5177	O	GLU	668	55.339	77.559	36.814	1.00	22.31	A	O
ATOM	5178	N	ARG	669	55.098	75.449	36.101	1.00	21.90	A	N
ATOM	5179	CA	ARG	669	53.648	75.458	36.249	1.00	21.18	A	C
ATOM	5180	CB	ARG	669	53.060	74.121	35.786	1.00	22.06	A	C
ATOM	5181	CG	ARG	669	51.546	74.026	35.922	1.00	21.37	A	C
ATOM	5182	CD	ARG	669	51.085	72.625	35.653	1.00	20.85	A	C
ATOM	5183	NE	ARG	669	51.467	72.187	34.319	1.00	21.84	A	N
ATOM	5184	CZ	ARG	669	51.667	70.918	33.981	1.00	21.10	A	C
ATOM	5185	NH1	ARG	669	51.522	69.962	34.888	1.00	19.62	A	N
ATOM	5186	NH2	ARG	669	52.018	70.610	32.741	1.00	20.23	A	N
ATOM	5187	C	ARG	669	53.246	75.706	37.695	1.00	21.23	A	C
ATOM	5188	O	ARG	669	52.209	76.306	37.957	1.00	20.45	A	O
ATOM	5189	N	TYR	670	54.067	75.239	38.631	1.00	21.65	A	N
ATOM	5190	CA	TYR	670	53.771	75.409	40.047	1.00	22.27	A	C
ATOM	5191	CB	TYR	670	53.752	74.048	40.764	1.00	21.10	A	C
ATOM	5192	CG	TYR	670	53.113	72.930	39.972	1.00	20.47	A	C
ATOM	5193	CD1	TYR	670	53.896	71.995	39.310	1.00	20.74	A	C

(Continued)

FIG. 4-107

ATOM	5194	CE1	TYR	670	53.321	70.985	38.537	1.00	22.18	A	C
ATOM	5195	CD2	TYR	670	51.726	72.831	39.850	1.00	19.78	A	C
ATOM	5196	CE2	TYR	670	51.139	71.831	39.079	1.00	19.87	A	C
ATOM	5197	CZ	TYR	670	51.944	70.911	38.422	1.00	22.17	A	C
ATOM	5198	OH	TYR	670	51.388	69.931	37.623	1.00	23.11	A	O
ATOM	5199	C	TYR	670	54.769	76.317	40.757	1.00	23.32	A	C
ATOM	5200	O	TYR	670	54.442	76.937	41.763	1.00	24.86	A	O
ATOM	5201	N	MET	671	55.983	76.404	40.228	1.00	24.66	A	N
ATOM	5202	CA	MET	671	57.029	77.207	40.851	1.00	23.96	A	C
ATOM	5203	CB	MET	671	58.327	76.400	40.905	1.00	24.00	A	C
ATOM	5204	CG	MET	671	58.288	75.215	41.852	1.00	23.55	A	C
ATOM	5205	SD	MET	671	58.383	75.732	43.565	1.00	24.97	A	S
ATOM	5206	CE	MET	671	60.159	75.998	43.721	1.00	21.94	A	C
ATOM	5207	C	MET	671	57.330	78.547	40.203	1.00	24.00	A	C
ATOM	5208	O	MET	671	58.101	79.331	40.756	1.00	25.98	A	O
ATOM	5209	N	GLY	672	56.741	78.822	39.045	1.00	22.07	A	N
ATOM	5210	CA	GLY	672	57.044	80.076	38.379	1.00	22.40	A	C
ATOM	5211	C	GLY	672	58.472	80.028	37.857	1.00	22.69	A	C
ATOM	5212	O	GLY	672	59.005	78.947	37.641	1.00	23.27	A	O
ATOM	5213	N	LEU	673	59.108	81.180	37.667	1.00	22.65	A	N
ATOM	5214	CA	LEU	673	60.477	81.209	37.151	1.00	20.90	A	C
ATOM	5215	CB	LEU	673	60.626	82.356	36.164	1.00	19.50	A	C
ATOM	5216	CG	LEU	673	59.639	82.282	35.010	1.00	19.96	A	C
ATOM	5217	CD1	LEU	673	59.779	83.513	34.147	1.00	20.87	A	C
ATOM	5218	CD2	LEU	673	59.892	81.027	34.203	1.00	21.63	A	C
ATOM	5219	C	LEU	673	61.528	81.344	38.248	1.00	21.08	A	C
ATOM	5220	O	LEU	673	61.313	82.028	39.239	1.00	21.87	A	O
ATOM	5221	N	PRO	674	62.692	80.700	38.072	1.00	21.90	A	N
ATOM	5222	CD	PRO	674	63.050	79.803	36.968	1.00	21.16	A	C
ATOM	5223	CA	PRO	674	63.780	80.747	39.050	1.00	23.23	A	C
ATOM	5224	CB	PRO	674	64.618	79.510	38.709	1.00	21.90	A	C
ATOM	5225	CG	PRO	674	63.803	78.755	37.695	1.00	22.34	A	C
ATOM	5226	C	PRO	674	64.617	82.023	38.943	1.00	24.90	A	C
ATOM	5227	O	PRO	674	65.841	81.977	39.028	1.00	26.10	A	O
ATOM	5228	N	THR	675	63.966	83.158	38.743	1.00	25.88	A	N
ATOM	5229	CA	THR	675	64.695	84.411	38.640	1.00	27.60	A	C
ATOM	5230	CB	THR	675	64.208	85.237	37.447	1.00	27.12	A	C
ATOM	5231	OG1	THR	675	62.811	85.524	37.599	1.00	29.30	A	O
ATOM	5232	CG2	THR	675	64.431	84.471	36.156	1.00	25.59	A	C
ATOM	5233	C	THR	675	64.496	85.211	39.918	1.00	28.74	A	C
ATOM	5234	O	THR	675	63.543	84.982	40.660	1.00	29.47	A	O
ATOM	5235	N	PRO	676	65.404	86.156	40.200	1.00	29.41	A	N
ATOM	5236	CD	PRO	676	66.625	86.508	39.457	1.00	28.96	A	C
ATOM	5237	CA	PRO	676	65.284	86.969	41.411	1.00	29.70	A	C
ATOM	5238	CB	PRO	676	66.465	87.929	41.299	1.00	28.87	A	C
ATOM	5239	CG	PRO	676	67.467	87.142	40.533	1.00	28.27	A	C
ATOM	5240	C	PRO	676	63.948	87.707	41.484	1.00	30.03	A	C
ATOM	5241	O	PRO	676	63.359	87.829	42.558	1.00	29.93	A	O
ATOM	5242	N	GLU	677	63.463	88.190	40.343	1.00	30.62	A	N

(Continued)

FIG. 4-108

ATOM	5243	CA	GLU	677	62.203	88.923	40.348	1.00	30.92	A	C
ATOM	5244	CB	GLU	677	62.192	90.013	39.264	1.00	32.38	A	C
ATOM	5245	CG	GLU	677	62.103	89.536	37.821	1.00	34.78	A	C
ATOM	5246	CD	GLU	677	63.380	88.877	37.331	1.00	37.04	A	C
ATOM	5247	OE1	GLU	677	64.480	89.356	37.697	1.00	35.11	A	O
ATOM	5248	OE2	GLU	677	63.276	87.891	36.566	1.00	37.80	A	O
ATOM	5249	C	GLU	677	60.952	88.065	40.231	1.00	30.10	A	C
ATOM	5250	O	GLU	677	59.893	88.564	39.849	1.00	31.67	A	O
ATOM	5251	N	ASP	678	61.067	86.777	40.546	1.00	28.40	A	N
ATOM	5252	CA	ASP	678	59.906	85.897	40.523	1.00	26.09	A	C
ATOM	5253	CB	ASP	678	59.833	85.048	39.253	1.00	25.88	A	C
ATOM	5254	CG	ASP	678	58.472	84.359	39.097	1.00	28.22	A	C
ATOM	5255	OD1	ASP	678	57.885	83.980	40.128	1.00	28.64	A	O
ATOM	5256	OD2	ASP	678	57.980	84.189	37.956	1.00	28.80	A	O
ATOM	5257	C	ASP	678	59.920	84.982	41.737	1.00	25.86	A	C
ATOM	5258	O	ASP	678	59.481	85.382	42.810	1.00	28.55	A	O
ATOM	5259	N	ASN	679	60.442	83.768	41.591	1.00	23.97	A	N
ATOM	5260	CA	ASN	679	60.443	82.835	42.708	1.00	21.47	A	C
ATOM	5261	CB	ASN	679	59.326	81.818	42.496	1.00	19.41	A	C
ATOM	5262	CG	ASN	679	58.894	81.146	43.778	1.00	19.58	A	C
ATOM	5263	OD1	ASN	679	58.491	79.981	43.775	1.00	20.44	A	O
ATOM	5264	ND2	ASN	679	58.957	81.879	44.882	1.00	18.70	A	N
ATOM	5265	C	ASN	679	61.760	82.099	42.957	1.00	21.79	A	C
ATOM	5266	O	ASN	679	61.770	81.055	43.601	1.00	21.89	A	O
ATOM	5267	N	LEU	680	62.873	82.636	42.472	1.00	24.38	A	N
ATOM	5268	CA	LEU	680	64.164	81.967	42.665	1.00	26.33	A	C
ATOM	5269	CB	LEU	680	65.316	82.842	42.157	1.00	26.74	A	C
ATOM	5270	CG	LEU	680	66.726	82.275	42.385	1.00	28.22	A	C
ATOM	5271	CD1	LEU	680	66.844	80.903	41.747	1.00	30.03	A	C
ATOM	5272	CD2	LEU	680	67.772	83.211	41.801	1.00	29.33	A	C
ATOM	5273	C	LEU	680	64.449	81.556	44.109	1.00	27.18	A	C
ATOM	5274	O	LEU	680	64.977	80.471	44.347	1.00	28.31	A	O
ATOM	5275	N	ASP	681	64.111	82.411	45.072	1.00	27.79	A	N
ATOM	5276	CA	ASP	681	64.360	82.091	46.475	1.00	28.03	A	C
ATOM	5277	CB	ASP	681	63.836	83.196	47.394	1.00	30.36	A	C
ATOM	5278	CG	ASP	681	64.774	84.386	47.473	1.00	34.23	A	C
ATOM	5279	OD1	ASP	681	65.908	84.289	46.952	1.00	35.59	A	O
ATOM	5280	OD2	ASP	681	64.380	85.417	48.067	1.00	36.71	A	O
ATOM	5281	C	ASP	681	63.773	80.753	46.920	1.00	27.55	A	C
ATOM	5282	O	ASP	681	64.428	80.005	47.647	1.00	28.05	A	O
ATOM	5283	N	HIS	682	62.551	80.438	46.502	1.00	25.37	A	N
ATOM	5284	CA	HIS	682	61.981	79.164	46.913	1.00	25.07	A	C
ATOM	5285	CB	HIS	682	60.456	79.161	46.801	1.00	25.14	A	C
ATOM	5286	CG	HIS	682	59.832	77.914	47.349	1.00	27.18	A	C
ATOM	5287	CD2	HIS	682	59.091	76.948	46.754	1.00	27.87	A	C
ATOM	5288	ND1	HIS	682	60.021	77.503	48.650	1.00	26.29	A	N
ATOM	5289	CE1	HIS	682	59.428	76.336	48.832	1.00	26.61	A	C
ATOM	5290	NE2	HIS	682	58.857	75.977	47.697	1.00	25.03	A	N
ATOM	5291	C	HIS	682	62.559	77.983	46.130	1.00	24.30	A	C

(Continued)

FIG. 4-109

ATOM	5292	O	HIS	682	62.463	76.837	46.572	1.00	23.47	A	O
ATOM	5293	N	TYR	683	63.144	78.258	44.966	1.00	23.49	A	N
ATOM	5294	CA	TYR	683	63.768	77.208	44.157	1.00	22.64	A	C
ATOM	5295	CB	TYR	683	64.249	77.758	42.812	1.00	20.68	A	C
ATOM	5296	CG	TYR	683	63.291	77.594	41.655	1.00	19.28	A	C
ATOM	5297	CD1	TYR	683	63.325	76.461	40.857	1.00	16.29	A	C
ATOM	5298	CE1	TYR	683	62.464	76.317	39.783	1.00	16.83	A	C
ATOM	5299	CD2	TYR	683	62.361	78.589	41.347	1.00	20.47	A	C
ATOM	5300	CE2	TYR	683	61.495	78.453	40.276	1.00	20.17	A	C
ATOM	5301	CZ	TYR	683	61.554	77.314	39.500	1.00	19.09	A	C
ATOM	5302	OH	TYR	683	60.695	77.176	38.441	1.00	21.54	A	O
ATOM	5303	C	TYR	683	64.989	76.727	44.924	1.00	22.32	A	C
ATOM	5304	O	TYR	683	65.189	75.533	45.125	1.00	22.65	A	O
ATOM	5305	N	ARG	684	65.799	77.685	45.355	1.00	22.44	A	N
ATOM	5306	CA	ARG	684	67.025	77.392	46.076	1.00	22.97	A	C
ATOM	5307	CB	ARG	684	67.928	78.624	46.071	1.00	22.89	A	C
ATOM	5308	CG	ARG	684	68.349	79.064	44.672	1.00	24.57	A	C
ATOM	5309	CD	ARG	684	69.238	78.020	44.004	1.00	23.11	A	C
ATOM	5310	NE	ARG	684	69.328	78.223	42.562	1.00	25.47	A	N
ATOM	5311	CZ	ARG	684	69.844	79.299	41.974	1.00	27.89	A	C
ATOM	5312	NH1	ARG	684	70.337	80.294	42.703	1.00	29.09	A	N
ATOM	5313	NH2	ARG	684	69.846	79.388	40.648	1.00	27.04	A	N
ATOM	5314	C	ARG	684	66.807	76.922	47.501	1.00	22.90	A	C
ATOM	5315	O	ARG	684	67.711	76.368	48.111	1.00	24.16	A	O
ATOM	5316	N	ASN	685	65.608	77.121	48.030	1.00	24.64	A	N
ATOM	5317	CA	ASN	685	65.331	76.715	49.399	1.00	24.41	A	C
ATOM	5318	CB	ASN	685	64.599	77.831	50.134	1.00	28.42	A	C
ATOM	5319	CG	ASN	685	64.455	77.547	51.610	1.00	34.24	A	C
ATOM	5320	OD1	ASN	685	65.410	77.117	52.266	1.00	38.25	A	O
ATOM	5321	ND2	ASN	685	63.264	77.791	52.150	1.00	37.49	A	N
ATOM	5322	C	ASN	685	64.545	75.419	49.537	1.00	23.72	A	C
ATOM	5323	O	ASN	685	64.356	74.929	50.649	1.00	23.86	A	O
ATOM	5324	N	SER	686	64.101	74.852	48.417	1.00	21.55	A	N
ATOM	5325	CA	SER	686	63.336	73.613	48.457	1.00	19.71	A	C
ATOM	5326	CB	SER	686	61.976	73.811	47.774	1.00	19.20	A	C
ATOM	5327	OG	SER	686	62.114	74.112	46.397	1.00	15.00	A	O
ATOM	5328	C	SER	686	64.060	72.421	47.823	1.00	20.13	A	C
ATOM	5329	O	SER	686	63.447	71.611	47.128	1.00	21.27	A	O
ATOM	5330	N	THR	687	65.362	72.307	48.060	1.00	19.02	A	N
ATOM	5331	CA	THR	687	66.122	71.189	47.509	1.00	17.15	A	C
ATOM	5332	CB	THR	687	67.441	71.665	46.906	1.00	16.10	A	C
ATOM	5333	OG1	THR	687	68.362	71.959	47.960	1.00	17.42	A	O
ATOM	5334	CG2	THR	687	67.214	72.920	46.058	1.00	14.71	A	C
ATOM	5335	C	THR	687	66.433	70.153	48.585	1.00	15.79	A	C
ATOM	5336	O	THR	687	66.496	70.466	49.763	1.00	15.82	A	O
ATOM	5337	N	VAL	688	66.627	68.908	48.182	1.00	18.43	A	N
ATOM	5338	CA	VAL	688	66.935	67.854	49.147	1.00	17.92	A	C
ATOM	5339	CB	VAL	688	66.840	66.453	48.480	1.00	17.13	A	C
ATOM	5340	CG1	VAL	688	67.092	65.352	49.503	1.00	15.01	A	C

(Continued)

FIG. 4-110

ATOM	5341	CG2	VAL	688	65.459	66.279	47.845	1.00	18.49	A	C
ATOM	5342	C	VAL	688	68.341	68.059	49.720	1.00	17.50	A	C
ATOM	5343	O	VAL	688	68.559	67.905	50.923	1.00	15.69	A	O
ATOM	5344	N	MET	689	69.280	68.428	48.851	1.00	16.92	A	N
ATOM	5345	CA	MET	689	70.672	68.647	49.246	1.00	17.40	A	C
ATOM	5346	CB	MET	689	71.475	69.213	48.065	1.00	13.91	A	C
ATOM	5347	CG	MET	689	71.829	68.210	46.984	1.00	10.55	A	C
ATOM	5348	SD	MET	689	70.465	67.740	45.909	1.00	11.73	A	S
ATOM	5349	CE	MET	689	70.338	69.210	44.871	1.00	9.36	A	C
ATOM	5350	C	MET	689	70.897	69.539	50.479	1.00	17.90	A	C
ATOM	5351	O	MET	689	71.721	69.220	51.341	1.00	16.90	A	O
ATOM	5352	N	SER	690	70.179	70.653	50.569	1.00	18.32	A	N
ATOM	5353	CA	SER	690	70.358	71.544	51.712	1.00	21.65	A	C
ATOM	5354	CB	SER	690	69.621	72.866	51.501	1.00	20.29	A	C
ATOM	5355	OG	SER	690	68.234	72.702	51.711	1.00	24.78	A	O
ATOM	5356	C	SER	690	69.898	70.933	53.038	1.00	22.31	A	C
ATOM	5357	O	SER	690	69.930	71.606	54.063	1.00	23.43	A	O
ATOM	5358	N	ARG	691	69.480	69.672	53.023	1.00	21.70	A	N
ATOM	5359	CA	ARG	691	69.041	69.012	54.249	1.00	23.07	A	C
ATOM	5360	CB	ARG	691	67.591	68.546	54.113	1.00	22.90	A	C
ATOM	5361	CG	ARG	691	66.623	69.652	53.770	1.00	22.81	A	C
ATOM	5362	CD	ARG	691	65.201	69.152	53.813	1.00	22.97	A	C
ATOM	5363	NE	ARG	691	64.236	70.240	53.694	1.00	24.03	A	N
ATOM	5364	CZ	ARG	691	62.963	70.134	54.061	1.00	26.18	A	C
ATOM	5365	NH1	ARG	691	62.509	68.989	54.566	1.00	25.20	A	N
ATOM	5366	NH2	ARG	691	62.149	71.172	53.946	1.00	26.01	A	N
ATOM	5367	C	ARG	691	69.922	67.811	54.593	1.00	24.24	A	C
ATOM	5368	O	ARG	691	69.595	67.031	55.488	1.00	25.28	A	O
ATOM	5369	N	ALA	692	71.041	67.675	53.889	1.00	24.03	A	N
ATOM	5370	CA	ALA	692	71.960	66.561	54.100	1.00	24.84	A	C
ATOM	5371	CB	ALA	692	73.270	66.826	53.360	1.00	24.20	A	C
ATOM	5372	C	ALA	692	72.251	66.210	55.562	1.00	24.60	A	C
ATOM	5373	O	ALA	692	72.066	65.068	55.967	1.00	24.83	A	O
ATOM	5374	N	GLU	693	72.707	67.181	56.347	1.00	25.74	A	N
ATOM	5375	CA	GLU	693	73.033	66.944	57.757	1.00	27.13	A	C
ATOM	5376	CB	GLU	693	73.351	68.266	58.463	1.00	29.38	A	C
ATOM	5377	CG	GLU	693	74.829	68.606	58.583	1.00	35.02	A	C
ATOM	5378	CD	GLU	693	75.604	67.627	59.463	1.00	39.06	A	C
ATOM	5379	OE1	GLU	693	74.984	66.948	60.316	1.00	38.42	A	O
ATOM	5380	OE2	GLU	693	76.845	67.554	59.307	1.00	41.03	A	O
ATOM	5381	C	GLU	693	71.947	66.215	58.549	1.00	26.16	A	C
ATOM	5382	O	GLU	693	72.250	65.505	59.506	1.00	26.78	A	O
ATOM	5383	N	ASN	694	70.688	66.387	58.160	1.00	24.46	A	N
ATOM	5384	CA	ASN	694	69.594	65.734	58.873	1.00	24.35	A	C
ATOM	5385	CB	ASN	694	68.274	66.473	58.619	1.00	26.79	A	C
ATOM	5386	CG	ASN	694	68.191	67.796	59.370	1.00	28.23	A	C
ATOM	5387	OD1	ASN	694	67.291	68.607	59.132	1.00	29.60	A	O
ATOM	5388	ND2	ASN	694	69.127	68.015	60.287	1.00	27.09	A	N
ATOM	5389	C	ASN	694	69.412	64.252	58.567	1.00	22.78	A	C

(Continued)

FIG. 4-111

ATOM	5390	O	ASN	694	68.736	63.555	59.318	1.00	22.09	A	O
ATOM	5391	N	PHE	695	70.008	63.764	57.481	1.00	21.23	A	N
ATOM	5392	CA	PHE	695	69.876	62.351	57.135	1.00	20.87	A	C
ATOM	5393	CB	PHE	695	70.297	62.085	55.686	1.00	18.97	A	C
ATOM	5394	CG	PHE	695	69.262	62.465	54.663	1.00	15.41	A	C
ATOM	5395	CD1	PHE	695	68.980	63.804	54.394	1.00	16.20	A	C
ATOM	5396	CD2	PHE	695	68.582	61.480	53.948	1.00	13.85	A	C
ATOM	5397	CE1	PHE	695	68.033	64.160	53.419	1.00	15.80	A	C
ATOM	5398	CE2	PHE	695	67.636	61.819	52.976	1.00	14.69	A	C
ATOM	5399	CZ	PHE	695	67.360	63.165	52.710	1.00	14.36	A	C
ATOM	5400	C	PHE	695	70.704	61.478	58.068	1.00	22.60	A	C
ATOM	5401	O	PHE	695	70.734	60.253	57.932	1.00	22.75	A	O
ATOM	5402	N	LYS	696	71.388	62.111	59.014	1.00	23.86	A	N
ATOM	5403	CA	LYS	696	72.189	61.369	59.980	1.00	24.30	A	C
ATOM	5404	CB	LYS	696	73.119	62.315	60.744	1.00	23.88	A	C
ATOM	5405	CG	LYS	696	74.230	62.883	59.891	1.00	27.19	A	C
ATOM	5406	CD	LYS	696	75.160	63.793	60.672	1.00	26.74	A	C
ATOM	5407	CE	LYS	696	76.354	64.211	59.816	1.00	26.44	A	C
ATOM	5408	NZ	LYS	696	77.248	65.163	60.534	1.00	28.88	A	N
ATOM	5409	C	LYS	696	71.256	60.670	60.962	1.00	24.58	A	C
ATOM	5410	O	LYS	696	71.673	59.790	61.710	1.00	24.47	A	O
ATOM	5411	N	GLN	697	69.986	61.060	60.949	1.00	24.66	A	N
ATOM	5412	CA	GLN	697	69.013	60.476	61.865	1.00	26.18	A	C
ATOM	5413	CB	GLN	697	68.072	61.571	62.385	1.00	28.53	A	C
ATOM	5414	CG	GLN	697	68.766	62.865	62.792	1.00	31.73	A	C
ATOM	5415	CD	GLN	697	67.790	63.938	63.262	1.00	34.90	A	C
ATOM	5416	OE1	GLN	697	68.086	65.133	63.195	1.00	37.16	A	O
ATOM	5417	NE2	GLN	697	66.627	63.516	63.753	1.00	36.42	A	N
ATOM	5418	C	GLN	697	68.176	59.346	61.259	1.00	24.79	A	C
ATOM	5419	O	GLN	697	67.294	58.808	61.923	1.00	27.00	A	O
ATOM	5420	N	VAL	698	68.439	58.979	60.011	1.00	21.46	A	N
ATOM	5421	CA	VAL	698	67.659	57.922	59.383	1.00	18.56	A	C
ATOM	5422	CB	VAL	698	66.510	58.517	58.524	1.00	19.77	A	C
ATOM	5423	CG1	VAL	698	65.674	59.467	59.355	1.00	19.11	A	C
ATOM	5424	CG2	VAL	698	67.077	59.233	57.296	1.00	15.74	A	C
ATOM	5425	C	VAL	698	68.469	56.987	58.484	1.00	18.57	A	C
ATOM	5426	O	VAL	698	69.614	57.265	58.135	1.00	17.50	A	O
ATOM	5427	N	GLU	699	67.850	55.868	58.121	1.00	18.32	A	N
ATOM	5428	CA	GLU	699	68.456	54.885	57.236	1.00	18.24	A	C
ATOM	5429	CB	GLU	699	68.007	53.488	57.636	1.00	19.38	A	C
ATOM	5430	CG	GLU	699	67.600	53.411	59.097	1.00	26.18	A	C
ATOM	5431	CD	GLU	699	68.384	52.377	59.891	1.00	29.91	A	C
ATOM	5432	OE1	GLU	699	69.620	52.305	59.712	1.00	31.51	A	O
ATOM	5433	OE2	GLU	699	67.765	51.651	60.703	1.00	30.28	A	O
ATOM	5434	C	GLU	699	67.857	55.286	55.891	1.00	17.20	A	C
ATOM	5435	O	GLU	699	66.638	55.397	55.765	1.00	16.35	A	O
ATOM	5436	N	TYR	700	68.714	55.516	54.899	1.00	15.53	A	N
ATOM	5437	CA	TYR	700	68.275	55.968	53.584	1.00	12.51	A	C
ATOM	5438	CB	TYR	700	68.810	57.383	53.365	1.00	12.28	A	C

(Continued)

FIG. 4-112

ATOM	5439	CG	TYR	700	68.374	58.105	52.114	1.00	13.03	A	C
ATOM	5440	CD1	TYR	700	67.027	58.171	51.746	1.00	12.78	A	C
ATOM	5441	CE1	TYR	700	66.611	58.961	50.666	1.00	7.94	A	C
ATOM	5442	CD2	TYR	700	69.301	58.840	51.359	1.00	12.91	A	C
ATOM	5443	CE2	TYR	700	68.895	59.629	50.282	1.00	10.45	A	C
ATOM	5444	CZ	TYR	700	67.550	59.688	49.948	1.00	10.05	A	C
ATOM	5445	OH	TYR	700	67.150	60.495	48.913	1.00	8.37	A	O
ATOM	5446	C	TYR	700	68.743	55.056	52.468	1.00	11.71	A	C
ATOM	5447	O	TYR	700	69.881	54.594	52.463	1.00	10.84	A	O
ATOM	5448	N	LEU	701	67.836	54.775	51.540	1.00	11.32	A	N
ATOM	5449	CA	LEU	701	68.142	53.950	50.383	1.00	11.03	A	C
ATOM	5450	CB	LEU	701	67.313	52.667	50.378	1.00	8.96	A	C
ATOM	5451	CG	LEU	701	67.439	51.794	49.123	1.00	10.04	A	C
ATOM	5452	CD1	LEU	701	68.841	51.873	48.511	1.00	7.25	A	C
ATOM	5453	CD2	LEU	701	67.089	50.376	49.490	1.00	5.44	A	C
ATOM	5454	C	LEU	701	67.811	54.799	49.170	1.00	13.03	A	C
ATOM	5455	O	LEU	701	66.660	55.219	48.986	1.00	13.35	A	O
ATOM	5456	N	LEU	702	68.840	55.068	48.367	1.00	12.91	A	N
ATOM	5457	CA	LEU	702	68.724	55.888	47.169	1.00	11.74	A	C
ATOM	5458	CB	LEU	702	69.806	56.968	47.196	1.00	11.17	A	C
ATOM	5459	CG	LEU	702	69.916	57.965	46.044	1.00	12.13	A	C
ATOM	5460	CD1	LEU	702	68.569	58.656	45.803	1.00	10.71	A	C
ATOM	5461	CD2	LEU	702	71.006	58.981	46.368	1.00	10.37	A	C
ATOM	5462	C	LEU	702	68.883	55.003	45.942	1.00	13.49	A	C
ATOM	5463	O	LEU	702	69.854	54.251	45.832	1.00	14.04	A	O
ATOM	5464	N	ILE	703	67.935	55.111	45.016	1.00	13.82	A	N
ATOM	5465	CA	ILE	703	67.934	54.297	43.806	1.00	12.92	A	C
ATOM	5466	CB	ILE	703	66.931	53.152	43.964	1.00	12.98	A	C
ATOM	5467	CG2	ILE	703	66.897	52.305	42.706	1.00	15.12	A	C
ATOM	5468	CG1	ILE	703	67.299	52.322	45.196	1.00	13.52	A	C
ATOM	5469	CD1	ILE	703	66.202	51.383	45.663	1.00	13.28	A	C
ATOM	5470	C	ILE	703	67.561	55.125	42.582	1.00	14.12	A	C
ATOM	5471	O	ILE	703	66.635	55.938	42.629	1.00	15.85	A	O
ATOM	5472	N	HIS	704	68.265	54.909	41.473	1.00	13.28	A	N
ATOM	5473	CA	HIS	704	67.987	55.678	40.265	1.00	11.81	A	C
ATOM	5474	CB	HIS	704	68.670	57.048	40.391	1.00	11.13	A	C
ATOM	5475	CG	HIS	704	67.968	58.156	39.667	1.00	11.66	A	C
ATOM	5476	CD2	HIS	704	67.446	58.221	38.418	1.00	10.83	A	C
ATOM	5477	ND1	HIS	704	67.736	59.387	40.244	1.00	10.07	A	N
ATOM	5478	CE1	HIS	704	67.098	60.162	39.385	1.00	9.04	A	C
ATOM	5479	NE2	HIS	704	66.910	59.479	38.270	1.00	11.23	A	N
ATOM	5480	C	HIS	704	68.464	54.965	38.992	1.00	11.87	A	C
ATOM	5481	O	HIS	704	69.503	54.306	38.980	1.00	11.87	A	O
ATOM	5482	N	GLY	705	67.684	55.082	37.926	1.00	11.49	A	N
ATOM	5483	CA	GLY	705	68.075	54.486	36.663	1.00	11.90	A	C
ATOM	5484	C	GLY	705	69.066	55.449	36.036	1.00	12.16	A	C
ATOM	5485	O	GLY	705	68.911	56.660	36.153	1.00	13.94	A	O
ATOM	5486	N	THR	706	70.086	54.928	35.372	1.00	13.29	A	N
ATOM	5487	CA	THR	706	71.101	55.782	34.770	1.00	12.51	A	C

(Continued)

FIG. 4-113

ATOM	5488	CB	THR	706	72.417	55.001	34.557	1.00	11.94	A	C
ATOM	5489	OG1	THR	706	72.230	53.983	33.565	1.00	12.79	A	O
ATOM	5490	CG2	THR	706	72.840	54.344	35.861	1.00	12.66	A	C
ATOM	5491	C	THR	706	70.678	56.409	33.455	1.00	13.02	A	C
ATOM	5492	O	THR	706	71.183	57.461	33.084	1.00	14.35	A	O
ATOM	5493	N	ALA	707	69.754	55.770	32.748	1.00	13.82	A	N
ATOM	5494	CA	ALA	707	69.289	56.302	31.469	1.00	15.26	A	C
ATOM	5495	CB	ALA	707	69.126	55.176	30.442	1.00	13.60	A	C
ATOM	5496	C	ALA	707	67.970	57.030	31.644	1.00	16.56	A	C
ATOM	5497	O	ALA	707	67.154	57.075	30.720	1.00	17.71	A	O
ATOM	5498	N	ASP	708	67.764	57.600	32.828	1.00	16.33	A	N
ATOM	5499	CA	ASP	708	66.534	58.314	33.113	1.00	16.71	A	C
ATOM	5500	CB	ASP	708	66.376	58.508	34.614	1.00	18.25	A	C
ATOM	5501	CG	ASP	708	64.957	58.834	35.000	1.00	19.59	A	C
ATOM	5502	OD1	ASP	708	64.304	59.612	34.266	1.00	18.82	A	O
ATOM	5503	OD2	ASP	708	64.498	58.317	36.038	1.00	19.68	A	O
ATOM	5504	C	ASP	708	66.490	59.673	32.408	1.00	17.30	A	C
ATOM	5505	O	ASP	708	67.131	60.647	32.843	1.00	18.75	A	O
ATOM	5506	N	ASP	709	65.715	59.722	31.327	1.00	13.98	A	N
ATOM	5507	CA	ASP	709	65.553	60.913	30.509	1.00	13.26	A	C
ATOM	5508	CB	ASP	709	65.028	60.503	29.137	1.00	11.83	A	C
ATOM	5509	CG	ASP	709	63.700	59.778	29.228	1.00	13.61	A	C
ATOM	5510	OD1	ASP	709	62.648	60.402	28.958	1.00	12.39	A	O
ATOM	5511	OD2	ASP	709	63.706	58.584	29.593	1.00	10.85	A	O
ATOM	5512	C	ASP	709	64.603	61.934	31.129	1.00	13.44	A	C
ATOM	5513	O	ASP	709	64.649	63.112	30.786	1.00	14.33	A	O
ATOM	5514	N	ASN	710	63.743	61.473	32.034	1.00	12.40	A	N
ATOM	5515	CA	ASN	710	62.761	62.331	32.702	1.00	11.63	A	C
ATOM	5516	CB	ASN	710	61.566	61.469	33.094	1.00	10.91	A	C
ATOM	5517	CG	ASN	710	60.388	62.276	33.572	1.00	12.77	A	C
ATOM	5518	OD1	ASN	710	59.271	61.760	33.651	1.00	14.18	A	O
ATOM	5519	ND2	ASN	710	60.621	63.539	33.903	1.00	12.05	A	N
ATOM	5520	C	ASN	710	63.395	63.010	33.938	1.00	13.10	A	C
ATOM	5521	O	ASN	710	63.691	64.211	33.912	1.00	12.53	A	O
ATOM	5522	N	VAL	711	63.570	62.246	35.017	1.00	11.10	A	N
ATOM	5523	CA	VAL	711	64.221	62.741	36.225	1.00	9.96	A	C
ATOM	5524	CB	VAL	711	63.620	62.128	37.512	1.00	9.85	A	C
ATOM	5525	CG1	VAL	711	64.415	62.570	38.719	1.00	7.61	A	C
ATOM	5526	CG2	VAL	711	62.176	62.567	37.675	1.00	11.26	A	C
ATOM	5527	C	VAL	711	65.645	62.237	36.038	1.00	10.48	A	C
ATOM	5528	O	VAL	711	65.949	61.068	36.280	1.00	10.00	A	O
ATOM	5529	N	HIS	712	66.518	63.126	35.591	1.00	10.94	A	N
ATOM	5530	CA	HIS	712	67.899	62.758	35.302	1.00	11.74	A	C
ATOM	5531	CB	HIS	712	68.577	63.961	34.646	1.00	10.79	A	C
ATOM	5532	CG	HIS	712	67.782	64.529	33.514	1.00	11.58	A	C
ATOM	5533	CD2	HIS	712	66.855	63.955	32.705	1.00	12.39	A	C
ATOM	5534	ND1	HIS	712	67.833	65.858	33.154	1.00	11.87	A	N
ATOM	5535	CE1	HIS	712	66.966	66.082	32.181	1.00	12.19	A	C
ATOM	5536	NE2	HIS	712	66.359	64.944	31.891	1.00	11.62	A	N

(Continued)

FIG. 4-114

ATOM	5537	C	HIS	712	68.698	62.222	36.491	1.00	10.63	A	C
ATOM	5538	O	HIS	712	68.461	62.598	37.633	1.00	11.98	A	O
ATOM	5539	N	PHE	713	69.631	61.319	36.210	1.00	10.82	A	N
ATOM	5540	CA	PHE	713	70.458	60.720	37.251	1.00	11.00	A	C
ATOM	5541	CB	PHE	713	71.533	59.823	36.634	1.00	11.14	A	C
ATOM	5542	CG	PHE	713	72.270	58.989	37.639	1.00	11.47	A	C
ATOM	5543	CD1	PHE	713	71.714	57.813	38.126	1.00	11.22	A	C
ATOM	5544	CD2	PHE	713	73.496	59.407	38.144	1.00	11.84	A	C
ATOM	5545	CE1	PHE	713	72.367	57.066	39.109	1.00	11.98	A	C
ATOM	5546	CE2	PHE	713	74.153	58.667	39.126	1.00	13.82	A	C
ATOM	5547	CZ	PHE	713	73.586	57.495	39.610	1.00	11.04	A	C
ATOM	5548	C	PHE	713	71.122	61.818	38.061	1.00	11.85	A	C
ATOM	5549	O	PHE	713	71.404	61.640	39.243	1.00	13.14	A	O
ATOM	5550	N	GLN	714	71.377	62.948	37.403	1.00	12.47	A	N
ATOM	5551	CA	GLN	714	72.001	64.113	38.022	1.00	10.55	A	C
ATOM	5552	CB	GLN	714	71.851	65.321	37.082	1.00	11.91	A	C
ATOM	5553	CG	GLN	714	72.055	66.695	37.740	1.00	10.69	A	C
ATOM	5554	CD	GLN	714	71.501	67.827	36.891	1.00	9.77	A	C
ATOM	5555	OE1	GLN	714	70.447	67.693	36.268	1.00	10.50	A	O
ATOM	5556	NE2	GLN	714	72.201	68.948	36.870	1.00	9.43	A	N
ATOM	5557	C	GLN	714	71.355	64.417	39.368	1.00	9.91	A	C
ATOM	5558	O	GLN	714	72.037	64.700	40.356	1.00	8.86	A	O
ATOM	5559	N	GLN	715	70.029	64.340	39.395	1.00	10.27	A	N
ATOM	5560	CA	GLN	715	69.255	64.616	40.599	1.00	10.62	A	C
ATOM	5561	CB	GLN	715	67.771	64.393	40.315	1.00	10.98	A	C
ATOM	5562	CG	GLN	715	67.267	65.219	39.144	1.00	11.10	A	C
ATOM	5563	CD	GLN	715	66.285	66.288	39.567	1.00	14.59	A	C
ATOM	5564	OE1	GLN	715	66.381	66.828	40.671	1.00	16.72	A	O
ATOM	5565	NE2	GLN	715	65.336	66.613	38.685	1.00	12.90	A	N
ATOM	5566	C	GLN	715	69.716	63.781	41.780	1.00	10.65	A	C
ATOM	5567	O	GLN	715	69.976	64.322	42.853	1.00	12.32	A	O
ATOM	5568	N	SER	716	69.828	62.472	41.600	1.00	9.91	A	N
ATOM	5569	CA	SER	716	70.299	61.630	42.700	1.00	12.35	A	C
ATOM	5570	CB	SER	716	69.937	60.163	42.461	1.00	10.77	A	C
ATOM	5571	OG	SER	716	68.541	59.994	42.492	1.00	14.60	A	O
ATOM	5572	C	SER	716	71.818	61.761	42.876	1.00	13.46	A	C
ATOM	5573	O	SER	716	72.341	61.556	43.976	1.00	14.90	A	O
ATOM	5574	N	ALA	717	72.522	62.094	41.797	1.00	12.22	A	N
ATOM	5575	CA	ALA	717	73.969	62.252	41.870	1.00	13.92	A	C
ATOM	5576	CB	ALA	717	74.555	62.487	40.479	1.00	12.46	A	C
ATOM	5577	C	ALA	717	74.299	63.423	42.790	1.00	13.73	A	C
ATOM	5578	O	ALA	717	75.257	63.375	43.560	1.00	15.24	A	O
ATOM	5579	N	GLN	718	73.504	64.482	42.710	1.00	13.27	A	N
ATOM	5580	CA	GLN	718	73.738	65.631	43.565	1.00	13.07	A	C
ATOM	5581	CB	GLN	718	72.976	66.841	43.035	1.00	13.93	A	C
ATOM	5582	CG	GLN	718	73.548	67.422	41.734	1.00	15.44	A	C
ATOM	5583	CD	GLN	718	74.996	67.865	41.867	1.00	13.84	A	C
ATOM	5584	OE1	GLN	718	75.467	68.172	42.950	1.00	16.85	A	O
ATOM	5585	NE2	GLN	718	75.699	67.915	40.755	1.00	17.86	A	N

(Continued)

FIG. 4-115

ATOM	5586	C	GLN	718	73.350	65.343	45.026	1.00	13.24	A C
ATOM	5587	O	GLN	718	73.941	65.910	45.949	1.00	11.74	A O
ATOM	5588	N	ILE	719	72.370	64.460	45.237	1.00	12.01	A N
ATOM	5589	CA	ILE	719	71.956	64.110	46.594	1.00	11.94	A C
ATOM	5590	CB	ILE	719	70.691	63.201	46.616	1.00	12.50	A C
ATOM	5591	CG2	ILE	719	70.464	62.673	48.021	1.00	11.09	A C
ATOM	5592	CG1	ILE	719	69.447	63.979	46.174	1.00	14.37	A C
ATOM	5593	CD1	ILE	719	68.170	63.143	46.154	1.00	8.64	A C
ATOM	5594	C	ILE	719	73.081	63.338	47.282	1.00	11.72	A C
ATOM	5595	O	ILE	719	73.543	63.703	48.367	1.00	10.69	A O
ATOM	5596	N	SER	720	73.508	62.262	46.632	1.00	11.35	A N
ATOM	5597	CA	SER	720	74.557	61.405	47.155	1.00	11.02	A C
ATOM	5598	CB	SER	720	74.901	60.325	46.135	1.00	10.89	A C
ATOM	5599	OG	SER	720	75.471	60.894	44.970	1.00	13.75	A O
ATOM	5600	C	SER	720	75.804	62.207	47.488	1.00	12.63	A C
ATOM	5601	O	SER	720	76.429	61.995	48.537	1.00	11.68	A O
ATOM	5602	N	LYS	721	76.159	63.129	46.594	1.00	12.18	A N
ATOM	5603	CA	LYS	721	77.336	63.951	46.800	1.00	12.15	A C
ATOM	5604	CB	LYS	721	77.613	64.823	45.571	1.00	11.24	A C
ATOM	5605	CG	LYS	721	78.764	65.796	45.756	1.00	7.41	A C
ATOM	5606	CD	LYS	721	79.517	66.064	44.451	1.00	9.30	A C
ATOM	5607	CE	LYS	721	78.674	66.765	43.392	1.00	8.74	A C
ATOM	5608	NZ	LYS	721	78.341	68.165	43.739	1.00	9.54	A N
ATOM	5609	C	LYS	721	77.190	64.816	48.038	1.00	13.24	A C
ATOM	5610	O	LYS	721	78.150	64.982	48.791	1.00	14.49	A O
ATOM	5611	N	ALA	722	75.992	65.351	48.262	1.00	13.05	A N
ATOM	5612	CA	ALA	722	75.760	66.198	49.432	1.00	13.21	A C
ATOM	5613	CB	ALA	722	74.389	66.870	49.353	1.00	9.37	A C
ATOM	5614	C	ALA	722	75.874	65.369	50.702	1.00	14.04	A C
ATOM	5615	O	ALA	722	76.430	65.826	51.694	1.00	15.43	A O
ATOM	5616	N	LEU	723	75.360	64.145	50.665	1.00	14.96	A N
ATOM	5617	CA	LEU	723	75.429	63.266	51.826	1.00	17.23	A C
ATOM	5618	CB	LEU	723	74.626	61.984	51.570	1.00	16.86	A C
ATOM	5619	CG	LEU	723	73.116	62.205	51.463	1.00	18.78	A C
ATOM	5620	CD1	LEU	723	72.428	60.932	50.991	1.00	18.74	A C
ATOM	5621	CD2	LEU	723	72.576	62.663	52.817	1.00	16.86	A C
ATOM	5622	C	LEU	723	76.889	62.926	52.134	1.00	17.26	A C
ATOM	5623	O	LEU	723	77.320	62.990	53.280	1.00	18.48	A O
ATOM	5624	N	VAL	724	77.641	62.559	51.103	1.00	17.41	A N
ATOM	5625	CA	VAL	724	79.050	62.234	51.257	1.00	16.64	A C
ATOM	5626	CB	VAL	724	79.671	61.824	49.902	1.00	14.31	A C
ATOM	5627	CG1	VAL	724	81.187	61.819	49.987	1.00	13.56	A C
ATOM	5628	CG2	VAL	724	79.178	60.449	49.519	1.00	14.78	A C
ATOM	5629	C	VAL	724	79.785	63.455	51.803	1.00	18.83	A C
ATOM	5630	O	VAL	724	80.665	63.337	52.662	1.00	19.09	A O
ATOM	5631	N	ASP	725	79.411	64.632	51.318	1.00	19.19	A N
ATOM	5632	CA	ASP	725	80.051	65.848	51.776	1.00	20.26	A C
ATOM	5633	CB	ASP	725	79.627	67.032	50.919	1.00	22.40	A C
ATOM	5634	CG	ASP	725	80.259	67.004	49.549	1.00	26.44	A C

(Continued)

FIG. 4-116

ATOM	5635	OD1	ASP	725	81.149	66.151	49.319	1.00	26.28	A	O
ATOM	5636	OD2	ASP	725	79.867	67.839	48.704	1.00	30.70	A	O
ATOM	5637	C	ASP	725	79.805	66.171	53.238	1.00	19.86	A	C
ATOM	5638	O	ASP	725	80.486	67.024	53.792	1.00	23.33	A	O
ATOM	5639	N	VAL	726	78.841	65.516	53.873	1.00	17.95	A	N
ATOM	5640	CA	VAL	726	78.603	65.790	55.285	1.00	17.97	A	C
ATOM	5641	CB	VAL	726	77.178	66.341	55.567	1.00	18.54	A	C
ATOM	5642	CG1	VAL	726	76.992	67.680	54.875	1.00	16.64	A	C
ATOM	5643	CG2	VAL	726	76.121	65.339	55.120	1.00	18.24	A	C
ATOM	5644	C	VAL	726	78.812	64.549	56.124	1.00	17.82	A	C
ATOM	5645	O	VAL	726	78.412	64.504	57.283	1.00	19.86	A	O
ATOM	5646	N	GLY	727	79.439	63.541	55.535	1.00	17.13	A	N
ATOM	5647	CA	GLY	727	79.711	62.317	56.263	1.00	16.84	A	C
ATOM	5648	C	GLY	727	78.509	61.489	56.681	1.00	17.94	A	C
ATOM	5649	O	GLY	727	78.483	60.961	57.794	1.00	19.74	A	O
ATOM	5650	N	VAL	728	77.517	61.371	55.802	1.00	16.62	A	N
ATOM	5651	CA	VAL	728	76.331	60.571	56.085	1.00	17.26	A	C
ATOM	5652	CB	VAL	728	75.030	61.302	55.643	1.00	18.46	A	C
ATOM	5653	CG1	VAL	728	73.838	60.338	55.668	1.00	16.22	A	C
ATOM	5654	CG2	VAL	728	74.753	62.476	56.579	1.00	18.70	A	C
ATOM	5655	C	VAL	728	76.411	59.230	55.347	1.00	18.03	A	C
ATOM	5656	O	VAL	728	76.667	59.186	54.143	1.00	18.40	A	O
ATOM	5657	N	ASP	729	76.211	58.135	56.069	1.00	18.22	A	N
ATOM	5658	CA	ASP	729	76.246	56.822	55.441	1.00	19.90	A	C
ATOM	5659	CB	ASP	729	76.734	55.752	56.420	1.00	22.57	A	C
ATOM	5660	CG	ASP	729	76.819	54.376	55.778	1.00	25.97	A	C
ATOM	5661	OD1	ASP	729	77.340	54.278	54.649	1.00	27.13	A	O
ATOM	5662	OD2	ASP	729	76.372	53.388	56.398	1.00	30.03	A	O
ATOM	5663	C	ASP	729	74.839	56.504	54.984	1.00	19.16	A	C
ATOM	5664	O	ASP	729	73.868	56.863	55.649	1.00	21.91	A	O
ATOM	5665	N	PHE	730	74.723	55.838	53.846	1.00	18.27	A	N
ATOM	5666	CA	PHE	730	73.416	55.499	53.299	1.00	16.06	A	C
ATOM	5667	CB	PHE	730	72.796	56.734	52.639	1.00	14.49	A	C
ATOM	5668	CG	PHE	730	73.590	57.265	51.480	1.00	12.02	A	C
ATOM	5669	CD1	PHE	730	73.262	56.913	50.177	1.00	10.26	A	C
ATOM	5670	CD2	PHE	730	74.691	58.082	51.694	1.00	11.55	A	C
ATOM	5671	CE1	PHE	730	74.020	57.364	49.098	1.00	10.41	A	C
ATOM	5672	CE2	PHE	730	75.459	58.537	50.621	1.00	13.40	A	C
ATOM	5673	CZ	PHE	730	75.120	58.175	49.317	1.00	9.85	A	C
ATOM	5674	C	PHE	730	73.565	54.388	52.281	1.00	16.20	A	C
ATOM	5675	O	PHE	730	74.675	53.990	51.945	1.00	18.49	A	O
ATOM	5676	N	GLN	731	72.447	53.883	51.791	1.00	17.40	A	N
ATOM	5677	CA	GLN	731	72.484	52.813	50.813	1.00	17.82	A	C
ATOM	5678	CB	GLN	731	71.514	51.708	51.208	1.00	20.04	A	C
ATOM	5679	CG	GLN	731	71.641	51.257	52.644	1.00	25.37	A	C
ATOM	5680	CD	GLN	731	73.019	50.737	52.968	1.00	28.25	A	C
ATOM	5681	OE1	GLN	731	73.554	49.883	52.256	1.00	32.85	A	O
ATOM	5682	NE2	GLN	731	73.603	51.238	54.055	1.00	30.12	A	N
ATOM	5683	C	GLN	731	72.091	53.382	49.458	1.00	17.65	A	C

(Continued)

FIG. 4-117

ATOM	5684	O	GLN	731	71.160	54.191	49.355	1.00	17.02	A O
ATOM	5685	N	ALA	732	72.802	52.962	48.421	1.00	14.78	A N
ATOM	5686	CA	ALA	732	72.510	53.444	47.088	1.00	15.21	A C
ATOM	5687	CB	ALA	732	73.588	54.409	46.626	1.00	15.17	A C
ATOM	5688	C	ALA	732	72.419	52.282	46.131	1.00	15.21	A C
ATOM	5689	O	ALA	732	72.940	51.207	46.396	1.00	16.17	A O
ATOM	5690	N	MET	733	71.737	52.504	45.019	1.00	14.57	A N
ATOM	5691	CA	MET	733	71.599	51.483	44.008	1.00	14.86	A C
ATOM	5692	CB	MET	733	70.490	50.499	44.383	1.00	15.14	A C
ATOM	5693	CG	MET	733	70.288	49.386	43.353	1.00	18.04	A C
ATOM	5694	SD	MET	733	71.814	48.476	42.961	1.00	22.04	A S
ATOM	5695	CE	MET	733	71.892	47.307	44.310	1.00	17.75	A C
ATOM	5696	C	MET	733	71.283	52.153	42.683	1.00	14.93	A C
ATOM	5697	O	MET	733	70.317	52.915	42.574	1.00	13.98	A O
ATOM	5698	N	TRP	734	72.113	51.884	41.680	1.00	13.82	A N
ATOM	5699	CA	TRP	734	71.890	52.447	40.356	1.00	13.13	A C
ATOM	5700	CB	TRP	734	73.173	53.117	39.827	1.00	10.39	A C
ATOM	5701	CG	TRP	734	74.187	52.159	39.267	1.00	8.77	A C
ATOM	5702	CD2	TRP	734	75.398	51.726	39.894	1.00	7.74	A C
ATOM	5703	CE2	TRP	734	75.984	50.757	39.053	1.00	9.97	A C
ATOM	5704	CE3	TRP	734	76.045	52.062	41.087	1.00	8.70	A C
ATOM	5705	CD1	TRP	734	74.095	51.463	38.095	1.00	10.56	A C
ATOM	5706	NE1	TRP	734	75.170	50.613	37.961	1.00	12.87	A N
ATOM	5707	CZ2	TRP	734	77.183	50.119	39.369	1.00	9.94	A C
ATOM	5708	CZ3	TRP	734	77.238	51.428	41.400	1.00	9.32	A C
ATOM	5709	CH2	TRP	734	77.793	50.468	40.545	1.00	9.49	A C
ATOM	5710	C	TRP	734	71.480	51.291	39.445	1.00	14.06	A C
ATOM	5711	O	TRP	734	71.903	50.155	39.653	1.00	13.91	A O
ATOM	5712	N	TYR	735	70.635	51.570	38.461	1.00	15.15	A N
ATOM	5713	CA	TYR	735	70.223	50.544	37.504	1.00	15.51	A C
ATOM	5714	CB	TYR	735	68.705	50.326	37.556	1.00	14.10	A C
ATOM	5715	CG	TYR	735	68.300	49.439	38.709	1.00	14.76	A C
ATOM	5716	CD1	TYR	735	68.619	48.081	38.708	1.00	14.45	A C
ATOM	5717	CE1	TYR	735	68.360	47.278	39.816	1.00	14.33	A C
ATOM	5718	CD2	TYR	735	67.696	49.971	39.848	1.00	15.84	A C
ATOM	5719	CE2	TYR	735	67.432	49.180	40.960	1.00	14.52	A C
ATOM	5720	CZ	TYR	735	67.772	47.835	40.938	1.00	16.33	A C
ATOM	5721	OH	TYR	735	67.547	47.056	42.048	1.00	17.53	A O
ATOM	5722	C	TYR	735	70.685	50.966	36.104	1.00	16.31	A C
ATOM	5723	O	TYR	735	70.103	51.858	35.466	1.00	15.82	A O
ATOM	5724	N	THR	736	71.763	50.330	35.654	1.00	15.44	A N
ATOM	5725	CA	THR	736	72.361	50.608	34.353	1.00	15.13	A C
ATOM	5726	CB	THR	736	73.491	49.602	34.030	1.00	14.68	A C
ATOM	5727	OG1	THR	736	74.470	49.614	35.076	1.00	15.48	A O
ATOM	5728	CG2	THR	736	74.156	49.961	32.713	1.00	14.72	A C
ATOM	5729	C	THR	736	71.365	50.549	33.206	1.00	15.41	A C
ATOM	5730	O	THR	736	70.650	49.560	33.044	1.00	16.44	A O
ATOM	5731	N	ASP	737	71.335	51.614	32.414	1.00	15.92	A N
ATOM	5732	CA	ASP	737	70.475	51.719	31.238	1.00	16.48	A C

(Continued)

FIG. 4-118

ATOM	5733	CB	ASP	737	70.884	50.677	30.200	1.00	15.90	A C
ATOM	5734	CG	ASP	737	72.232	50.972	29.574	1.00	20.37	A C
ATOM	5735	OD1	ASP	737	72.679	50.147	28.747	1.00	24.29	A O
ATOM	5736	OD2	ASP	737	72.847	52.020	29.895	1.00	18.74	A O
ATOM	5737	C	ASP	737	68.974	51.632	31.467	1.00	17.71	A C
ATOM	5738	O	ASP	737	68.205	51.507	30.515	1.00	18.86	A O
ATOM	5739	N	GLU	738	68.553	51.692	32.722	1.00	18.39	A N
ATOM	5740	CA	GLU	738	67.135	51.644	33.033	1.00	19.00	A C
ATOM	5741	CB	GLU	738	66.909	50.999	34.407	1.00	20.24	A C
ATOM	5742	CG	GLU	738	66.904	49.485	34.380	1.00	20.93	A C
ATOM	5743	CD	GLU	738	65.741	48.937	33.565	1.00	24.58	A C
ATOM	5744	OE1	GLU	738	64.588	49.289	33.878	1.00	27.21	A O
ATOM	5745	OE2	GLU	738	65.970	48.163	32.611	1.00	26.16	A O
ATOM	5746	C	GLU	738	66.624	53.076	33.025	1.00	19.38	A C
ATOM	5747	O	GLU	738	67.327	53.991	33.461	1.00	20.83	A O
ATOM	5748	N	ASP	739	65.414	53.288	32.525	1.00	18.55	A N
ATOM	5749	CA	ASP	739	64.892	54.642	32.493	1.00	17.49	A C
ATOM	5750	CB	ASP	739	64.074	54.863	31.222	1.00	18.32	A C
ATOM	5751	CG	ASP	739	62.689	54.271	31.293	1.00	21.44	A C
ATOM	5752	OD1	ASP	739	61.995	54.340	30.257	1.00	24.73	A O
ATOM	5753	OD2	ASP	739	62.285	53.752	32.358	1.00	21.35	A O
ATOM	5754	C	ASP	739	64.088	54.976	33.750	1.00	17.35	A C
ATOM	5755	O	ASP	739	64.191	54.282	34.762	1.00	15.74	A O
ATOM	5756	N	HIS	740	63.291	56.034	33.687	1.00	16.96	A N
ATOM	5757	CA	HIS	740	62.521	56.469	34.842	1.00	18.24	A C
ATOM	5758	CB	HIS	740	61.746	57.736	34.511	1.00	16.88	A C
ATOM	5759	CG	HIS	740	61.145	58.392	35.710	1.00	17.57	A C
ATOM	5760	CD2	HIS	740	59.883	58.812	35.961	1.00	16.26	A C
ATOM	5761	ND1	HIS	740	61.881	58.687	36.837	1.00	17.31	A N
ATOM	5762	CE1	HIS	740	61.097	59.262	37.732	1.00	18.51	A C
ATOM	5763	NE2	HIS	740	59.880	59.349	37.224	1.00	17.94	A N
ATOM	5764	C	HIS	740	61.557	55.449	35.426	1.00	19.90	A C
ATOM	5765	O	HIS	740	61.191	55.539	36.599	1.00	20.00	A O
ATOM	5766	N	GLY	741	61.151	54.481	34.614	1.00	19.40	A N
ATOM	5767	CA	GLY	741	60.216	53.484	35.084	1.00	18.82	A C
ATOM	5768	C	GLY	741	60.849	52.218	35.609	1.00	20.36	A C
ATOM	5769	O	GLY	741	60.165	51.404	36.237	1.00	22.79	A O
ATOM	5770	N	ILE	742	62.145	52.045	35.368	1.00	19.61	A N
ATOM	5771	CA	ILE	742	62.854	50.849	35.821	1.00	17.74	A C
ATOM	5772	CB	ILE	742	63.273	50.981	37.294	1.00	14.46	A C
ATOM	5773	CG2	ILE	742	64.279	49.917	37.638	1.00	14.37	A C
ATOM	5774	CG1	ILE	742	63.865	52.370	37.540	1.00	13.43	A C
ATOM	5775	CD1	ILE	742	64.540	52.552	38.887	1.00	9.55	A C
ATOM	5776	C	ILE	742	61.907	49.658	35.676	1.00	19.11	A C
ATOM	5777	O	ILE	742	61.805	48.825	36.571	1.00	18.97	A O
ATOM	5778	N	ALA	743	61.217	49.594	34.534	1.00	20.16	A N
ATOM	5779	CA	ALA	743	60.246	48.538	34.268	1.00	19.71	A C
ATOM	5780	CB	ALA	743	59.004	49.141	33.630	1.00	19.65	A C
ATOM	5781	C	ALA	743	60.717	47.350	33.430	1.00	20.08	A C

(Continued)

FIG. 4-119

ATOM	5782	O	ALA	743	59.898	46.536	33.006	1.00	20.99	A	O
ATOM	5783	N	SER	744	62.009	47.230	33.163	1.00	19.12	A	N
ATOM	5784	CA	SER	744	62.438	46.074	32.389	1.00	17.34	A	C
ATOM	5785	CB	SER	744	63.931	46.132	32.068	1.00	14.62	A	C
ATOM	5786	OG	SER	744	64.699	45.597	33.125	1.00	18.04	A	O
ATOM	5787	C	SER	744	62.132	44.896	33.300	1.00	16.58	A	C
ATOM	5788	O	SER	744	62.137	45.032	34.519	1.00	15.47	A	O
ATOM	5789	N	SER	745	61.853	43.742	32.715	1.00	19.10	A	N
ATOM	5790	CA	SER	745	61.524	42.558	33.503	1.00	20.03	A	C
ATOM	5791	CB	SER	745	61.417	41.343	32.598	1.00	20.12	A	C
ATOM	5792	OG	SER	745	61.110	40.209	33.377	1.00	27.90	A	O
ATOM	5793	C	SER	745	62.510	42.245	34.624	1.00	19.80	A	C
ATOM	5794	O	SER	745	62.130	42.078	35.781	1.00	19.78	A	O
ATOM	5795	N	THR	746	63.783	42.158	34.277	1.00	19.56	A	N
ATOM	5796	CA	THR	746	64.796	41.849	35.265	1.00	19.48	A	C
ATOM	5797	CB	THR	746	66.125	41.538	34.575	1.00	20.06	A	C
ATOM	5798	OG1	THR	746	66.463	42.615	33.691	1.00	23.41	A	O
ATOM	5799	CG2	THR	746	66.009	40.259	33.772	1.00	16.20	A	C
ATOM	5800	C	THR	746	64.996	42.966	36.288	1.00	19.59	A	C
ATOM	5801	O	THR	746	65.066	42.706	37.488	1.00	20.63	A	O
ATOM	5802	N	ALA	747	65.070	44.208	35.821	1.00	18.73	A	N
ATOM	5803	CA	ALA	747	65.286	45.334	36.723	1.00	18.03	A	C
ATOM	5804	CB	ALA	747	65.554	46.609	35.919	1.00	15.38	A	C
ATOM	5805	C	ALA	747	64.113	45.540	37.681	1.00	17.35	A	C
ATOM	5806	O	ALA	747	64.291	45.989	38.814	1.00	18.52	A	O
ATOM	5807	N	HIS	748	62.915	45.206	37.224	1.00	16.75	A	N
ATOM	5808	CA	HIS	748	61.718	45.342	38.046	1.00	16.92	A	C
ATOM	5809	CB	HIS	748	60.477	45.005	37.220	1.00	13.48	A	C
ATOM	5810	CG	HIS	748	59.214	44.968	38.020	1.00	14.10	A	C
ATOM	5811	CD2	HIS	748	58.397	43.941	38.348	1.00	12.63	A	C
ATOM	5812	ND1	HIS	748	58.663	46.094	38.595	1.00	14.71	A	N
ATOM	5813	CE1	HIS	748	57.561	45.762	39.241	1.00	13.05	A	C
ATOM	5814	NE2	HIS	748	57.377	44.461	39.107	1.00	14.46	A	N
ATOM	5815	C	HIS	748	61.790	44.415	39.263	1.00	18.16	A	C
ATOM	5816	O	HIS	748	61.525	44.816	40.394	1.00	20.72	A	O
ATOM	5817	N	GLN	749	62.148	43.165	39.025	1.00	18.81	A	N
ATOM	5818	CA	GLN	749	62.241	42.201	40.105	1.00	19.53	A	C
ATOM	5819	CB	GLN	749	62.408	40.801	39.519	1.00	20.05	A	C
ATOM	5820	CG	GLN	749	61.291	40.428	38.550	1.00	21.82	A	C
ATOM	5821	CD	GLN	749	61.618	39.190	37.757	1.00	20.87	A	C
ATOM	5822	OE1	GLN	749	62.047	38.187	38.316	1.00	22.37	A	O
ATOM	5823	NE2	GLN	749	61.415	39.249	36.447	1.00	20.00	A	N
ATOM	5824	C	GLN	749	63.416	42.524	41.008	1.00	19.07	A	C
ATOM	5825	O	GLN	749	63.335	42.388	42.231	1.00	17.88	A	O
ATOM	5826	N	HIS	750	64.508	42.972	40.399	1.00	18.97	A	N
ATOM	5827	CA	HIS	750	65.707	43.275	41.160	1.00	16.68	A	C
ATOM	5828	CB	HIS	750	66.871	43.597	40.226	1.00	14.65	A	C
ATOM	5829	CG	HIS	750	68.208	43.496	40.889	1.00	13.97	A	C
ATOM	5830	CD2	HIS	750	69.207	42.593	40.749	1.00	12.94	A	C

(Continued)

FIG. 4-120

ATOM	5831	ND1	HIS	750	68.615	44.365	41.877	1.00	13.54	A	N
ATOM	5832	CE1	HIS	750	69.804	44.000	42.320	1.00	12.57	A	C
ATOM	5833	NE2	HIS	750	70.185	42.927	41.653	1.00	12.04	A	N
ATOM	5834	C	HIS	750	65.529	44.400	42.157	1.00	17.33	A	C
ATOM	5835	O	HIS	750	65.945	44.277	43.309	1.00	18.09	A	O
ATOM	5836	N	ILE	751	64.899	45.490	41.726	1.00	17.03	A	N
ATOM	5837	CA	ILE	751	64.704	46.632	42.604	1.00	15.90	A	C
ATOM	5838	CB	ILE	751	64.206	47.849	41.805	1.00	17.60	A	C
ATOM	5839	CG2	ILE	751	62.893	47.504	41.088	1.00	16.17	A	C
ATOM	5840	CG1	ILE	751	64.065	49.058	42.736	1.00	15.94	A	C
ATOM	5841	CD1	ILE	751	63.684	50.332	42.017	1.00	12.51	A	C
ATOM	5842	C	ILE	751	63.751	46.341	43.767	1.00	16.09	A	C
ATOM	5843	O	ILE	751	64.062	46.632	44.919	1.00	16.37	A	O
ATOM	5844	N	TYR	752	62.596	45.759	43.480	1.00	16.32	A	N
ATOM	5845	CA	TYR	752	61.651	45.449	44.551	1.00	16.16	A	C
ATOM	5846	CB	TYR	752	60.323	44.967	43.968	1.00	13.79	A	C
ATOM	5847	CG	TYR	752	59.443	46.126	43.593	1.00	12.59	A	C
ATOM	5848	CD1	TYR	752	58.840	46.899	44.580	1.00	11.61	A	C
ATOM	5849	CE1	TYR	752	58.102	48.026	44.258	1.00	9.67	A	C
ATOM	5850	CD2	TYR	752	59.279	46.510	42.260	1.00	12.75	A	C
ATOM	5851	CE2	TYR	752	58.543	47.644	41.930	1.00	10.28	A	C
ATOM	5852	CZ	TYR	752	57.964	48.395	42.940	1.00	9.02	A	C
ATOM	5853	OH	TYR	752	57.278	49.542	42.642	1.00	12.10	A	O
ATOM	5854	C	TYR	752	62.226	44.429	45.522	1.00	16.42	A	C
ATOM	5855	O	TYR	752	61.927	44.467	46.719	1.00	16.42	A	O
ATOM	5856	N	THR	753	63.056	43.526	45.004	1.00	15.74	A	N
ATOM	5857	CA	THR	753	63.700	42.521	45.835	1.00	16.30	A	C
ATOM	5858	CB	THR	753	64.502	41.510	44.985	1.00	15.57	A	C
ATOM	5859	OG1	THR	753	63.601	40.677	44.253	1.00	15.74	A	O
ATOM	5860	CG2	THR	753	65.385	40.641	45.870	1.00	10.01	A	C
ATOM	5861	C	THR	753	64.678	43.240	46.758	1.00	18.17	A	C
ATOM	5862	O	THR	753	64.788	42.923	47.941	1.00	19.02	A	O
ATOM	5863	N	HIS	754	65.388	44.215	46.199	1.00	18.78	A	N
ATOM	5864	CA	HIS	754	66.363	44.972	46.959	1.00	18.90	A	C
ATOM	5865	CB	HIS	754	67.189	45.857	46.023	1.00	19.13	A	C
ATOM	5866	CG	HIS	754	68.449	46.379	46.644	1.00	19.62	A	C
ATOM	5867	CD2	HIS	754	68.786	47.619	47.070	1.00	18.70	A	C
ATOM	5868	ND1	HIS	754	69.539	45.576	46.904	1.00	18.44	A	N
ATOM	5869	CE1	HIS	754	70.493	46.298	47.462	1.00	17.52	A	C
ATOM	5870	NE2	HIS	754	70.062	47.541	47.574	1.00	19.51	A	N
ATOM	5871	C	HIS	754	65.663	45.828	48.007	1.00	19.38	A	C
ATOM	5872	O	HIS	754	66.088	45.876	49.158	1.00	19.63	A	O
ATOM	5873	N	MET	755	64.589	46.502	47.615	1.00	18.83	A	N
ATOM	5874	CA	MET	755	63.854	47.342	48.558	1.00	19.68	A	C
ATOM	5875	CB	MET	755	62.758	48.136	47.839	1.00	16.86	A	C
ATOM	5876	CG	MET	755	63.283	49.173	46.876	1.00	16.00	A	C
ATOM	5877	SD	MET	755	62.016	50.314	46.309	1.00	20.78	A	S
ATOM	5878	CE	MET	755	61.100	49.270	45.200	1.00	15.61	A	C
ATOM	5879	C	MET	755	63.232	46.506	49.676	1.00	20.27	A	C

(Continued)

FIG. 4-121

ATOM	5880	O	MET	755	63.112	46.969	50.811	1.00 20.56	A	O
ATOM	5881	N	SER	756	62.842	45.276	49.352	1.00 20.59	A	N
ATOM	5882	CA	SER	756	62.240	44.380	50.332	1.00 21.43	A	C
ATOM	5883	CB	SER	756	61.740	43.106	49.646	1.00 21.74	A	C
ATOM	5884	OG	SER	756	60.598	43.373	48.850	1.00 21.68	A	O
ATOM	5885	C	SER	756	63.224	44.023	51.444	1.00 22.50	A	C
ATOM	5886	O	SER	756	62.858	44.022	52.623	1.00 22.47	A	O
ATOM	5887	N	HIS	757	64.466	43.716	51.073	1.00 22.47	A	N
ATOM	5888	CA	HIS	757	65.483	43.384	52.065	1.00 23.01	A	C
ATOM	5889	CB	HIS	757	66.828	43.032	51.407	1.00 21.90	A	C
ATOM	5890	CG	HIS	757	66.837	41.721	50.682	1.00 24.99	A	C
ATOM	5891	CD2	HIS	757	67.344	41.375	49.473	1.00 26.07	A	C
ATOM	5892	ND1	HIS	757	66.314	40.563	51.220	1.00 26.51	A	N
ATOM	5893	CE1	HIS	757	66.497	39.564	50.375	1.00 25.15	A	C
ATOM	5894	NE2	HIS	757	67.120	40.029	49.307	1.00 25.93	A	N
ATOM	5895	C	HIS	757	65.689	44.596	52.966	1.00 23.03	A	C
ATOM	5896	O	HIS	757	65.823	44.474	54.186	1.00 24.03	A	O
ATOM	5897	N	PHE	758	65.704	45.771	52.356	1.00 22.28	A	N
ATOM	5898	CA	PHE	758	65.920	46.995	53.106	1.00 24.10	A	C
ATOM	5899	CB	PHE	758	66.005	48.190	52.161	1.00 20.12	A	C
ATOM	5900	CG	PHE	758	66.455	49.448	52.828	1.00 17.08	A	C
ATOM	5901	CD1	PHE	758	67.803	49.657	53.106	1.00 15.49	A	C
ATOM	5902	CD2	PHE	758	65.537	50.429	53.176	1.00 15.44	A	C
ATOM	5903	CE1	PHE	758	68.233	50.825	53.717	1.00 14.07	A	C
ATOM	5904	CE2	PHE	758	65.955	51.607	53.789	1.00 17.18	A	C
ATOM	5905	CZ	PHE	758	67.308	51.806	54.060	1.00 15.05	A	C
ATOM	5906	C	PHE	758	64.832	47.254	54.135	1.00 26.28	A	C
ATOM	5907	O	PHE	758	65.120	47.546	55.295	1.00 28.09	A	O
ATOM	5908	N	ILE	759	63.580	47.162	53.706	1.00 27.69	A	N
ATOM	5909	CA	ILE	759	62.461	47.394	54.605	1.00 29.02	A	C
ATOM	5910	CB	ILE	759	61.129	47.271	53.853	1.00 28.24	A	C
ATOM	5911	CG2	ILE	759	59.967	47.207	54.836	1.00 29.09	A	C
ATOM	5912	CG1	ILE	759	60.990	48.446	52.884	1.00 28.85	A	C
ATOM	5913	CD1	ILE	759	61.173	49.809	53.535	1.00 27.28	A	C
ATOM	5914	C	ILE	759	62.467	46.420	55.774	1.00 31.10	A	C
ATOM	5915	O	ILE	759	62.292	46.822	56.925	1.00 30.20	A	O
ATOM	5916	N	LYS	760	62.669	45.140	55.464	1.00 32.71	A	N
ATOM	5917	CA	LYS	760	62.697	44.079	56.465	1.00 33.04	A	C
ATOM	5918	CB	LYS	760	62.732	42.715	55.780	1.00 34.00	A	C
ATOM	5919	CG	LYS	760	61.405	42.300	55.164	1.00 37.68	A	C
ATOM	5920	CD	LYS	760	61.620	41.455	53.916	1.00 40.82	A	C
ATOM	5921	CE	LYS	760	62.473	40.229	54.199	1.00 42.70	A	C
ATOM	5922	NZ	LYS	760	62.952	39.600	52.933	1.00 44.73	A	N
ATOM	5923	C	LYS	760	63.885	44.205	57.396	1.00 33.20	A	C
ATOM	5924	O	LYS	760	63.874	43.676	58.504	1.00 34.38	A	O
ATOM	5925	N	GLN	761	64.914	44.902	56.939	1.00 33.26	A	N
ATOM	5926	CA	GLN	761	66.106	45.100	57.744	1.00 33.22	A	C
ATOM	5927	CB	GLN	761	67.295	45.422	56.830	1.00 35.03	A	C
ATOM	5928	CG	GLN	761	68.638	45.584	57.525	1.00 38.28	A	C

(Continued)

FIG. 4-122

ATOM	5929	CD	GLN	761	68.759	46.893	58.283	1.00	42.12	A	C
ATOM	5930	OE1	GLN	761	68.487	47.969	57.739	1.00	43.62	A	O
ATOM	5931	NE2	GLN	761	69.177	46.811	59.544	1.00	44.19	A	N
ATOM	5932	C	GLN	761	65.819	46.251	58.701	1.00	32.55	A	C
ATOM	5933	O	GLN	761	66.064	46.149	59.898	1.00	32.49	A	O
ATOM	5934	N	CYS	762	65.276	47.337	58.161	1.00	32.03	A	N
ATOM	5935	CA	CYS	762	64.945	48.513	58.953	1.00	33.26	A	C
ATOM	5936	C	CYS	762	63.888	48.216	60.023	1.00	32.69	A	C
ATOM	5937	O	CYS	762	63.892	48.830	61.087	1.00	32.22	A	O
ATOM	5938	CB	CYS	762	64.470	49.643	58.025	1.00	33.90	A	C
ATOM	5939	SG	CYS	762	63.606	51.029	58.843	1.00	40.21	A	S
ATOM	5940	N	PHE	763	62.993	47.271	59.742	1.00	32.59	A	N
ATOM	5941	CA	PHE	763	61.948	46.907	60.694	1.00	34.25	A	C
ATOM	5942	CB	PHE	763	60.618	46.647	59.981	1.00	31.61	A	C
ATOM	5943	CG	PHE	763	59.919	47.892	59.525	1.00	30.04	A	C
ATOM	5944	CD1	PHE	763	60.371	49.148	59.923	1.00	29.45	A	C
ATOM	5945	CD2	PHE	763	58.800	47.808	58.703	1.00	28.65	A	C
ATOM	5946	CE1	PHE	763	59.718	50.300	59.510	1.00	29.27	A	C
ATOM	5947	CE2	PHE	763	58.139	48.951	58.284	1.00	28.76	A	C
ATOM	5948	CZ	PHE	763	58.598	50.202	58.688	1.00	30.54	A	C
ATOM	5949	C	PHE	763	62.293	45.688	61.535	1.00	36.77	A	C
ATOM	5950	O	PHE	763	61.499	45.276	62.381	1.00	36.29	A	O
ATOM	5951	N	SER	764	63.463	45.102	61.290	1.00	39.62	A	N
ATOM	5952	CA	SER	764	63.907	43.941	62.052	1.00	43.05	A	C
ATOM	5953	CB	SER	764	65.356	43.598	61.701	1.00	44.44	A	C
ATOM	5954	OG	SER	764	66.215	44.709	61.913	1.00	48.06	A	O
ATOM	5955	C	SER	764	63.799	44.314	63.522	1.00	45.02	A	C
ATOM	5956	O	SER	764	64.195	45.412	63.916	1.00	44.75	A	O
ATOM	5957	N	LEU	765	63.264	43.412	64.335	1.00	48.04	A	N
ATOM	5958	CA	LEU	765	63.092	43.716	65.747	1.00	51.59	A	C
ATOM	5959	CB	LEU	765	61.624	44.067	66.017	1.00	50.97	A	C
ATOM	5960	CG	LEU	765	61.332	44.846	67.299	1.00	50.79	A	C
ATOM	5961	CD1	LEU	765	61.996	46.215	67.221	1.00	50.85	A	C
ATOM	5962	CD2	LEU	765	59.834	44.996	67.481	1.00	50.72	A	C
ATOM	5963	C	LEU	765	63.533	42.588	66.676	1.00	54.72	A	C
ATOM	5964	O	LEU	765	62.866	41.557	66.779	1.00	55.73	A	O
ATOM	5965	N	PRO	766	64.667	42.776	67.372	1.00	57.13	A	N
ATOM	5966	CD	PRO	766	65.545	43.960	67.317	1.00	57.88	A	C
ATOM	5967	CA	PRO	766	65.204	41.775	68.301	1.00	58.61	A	C
ATOM	5968	CB	PRO	766	66.600	42.309	68.604	1.00	58.49	A	C
ATOM	5969	CG	PRO	766	66.386	43.797	68.568	1.00	58.47	A	C
ATOM	5970	C	PRO	766	64.352	41.639	69.565	1.00	60.07	A	C
ATOM	5971	O	PRO	766	63.341	42.370	69.681	1.00	60.04	A	O
ATOM	5972	OXT	PRO	766	64.711	40.805	70.427	1.00	61.88	A	O
TER	5973		PRO	766						A	
ATOM	5974	CB	ASP	38	95.909	45.132	76.302	1.00	32.66	B	C
ATOM	5975	CG	ASP	38	96.954	46.047	75.698	1.00	32.61	B	C
ATOM	5976	OD1	ASP	38	96.905	47.269	75.977	1.00	30.88	B	O
ATOM	5977	OD2	ASP	38	97.816	45.544	74.942	1.00	31.65	B	O

(Continued)

FIG. 4-123

ATOM	5978	C	ASP	38	94.533	46.724	77.638	1.00	31.81	B C
ATOM	5979	O	ASP	38	93.521	46.648	76.938	1.00	32.54	B O
ATOM	5980	N	ASP	38	94.842	44.428	78.423	1.00	32.95	B N
ATOM	5981	CA	ASP	38	95.507	45.557	77.717	1.00	32.06	B C
ATOM	5982	N	SER	39	94.844	47.807	78.344	1.00	31.40	B N
ATOM	5983	CA	SER	39	93.974	48.982	78.372	1.00	30.28	B C
ATOM	5984	CB	SER	39	94.048	49.652	79.741	1.00	31.88	B C
ATOM	5985	OG	SER	39	95.362	50.119	80.003	1.00	34.53	B O
ATOM	5986	C	SER	39	94.289	50.017	77.305	1.00	29.15	B C
ATOM	5987	O	SER	39	93.615	51.049	77.220	1.00	30.29	B O
ATOM	5988	N	ARG	40	95.312	49.755	76.499	1.00	26.40	B N
ATOM	5989	CA	ARG	40	95.685	50.686	75.442	1.00	24.29	B C
ATOM	5990	CB	ARG	40	97.004	50.257	74.788	1.00	23.19	B C
ATOM	5991	CG	ARG	40	98.228	50.429	75.670	1.00	20.84	B C
ATOM	5992	CD	ARG	40	99.470	49.917	74.969	1.00	21.38	B C
ATOM	5993	NE	ARG	40	99.404	48.479	74.728	1.00	21.28	B N
ATOM	5994	CZ	ARG	40	100.260	47.812	73.963	1.00	22.73	B C
ATOM	5995	NH1	ARG	40	101.247	48.461	73.361	1.00	22.52	B N
ATOM	5996	NH2	ARG	40	100.134	46.497	73.806	1.00	22.23	B N
ATOM	5997	C	ARG	40	94.604	50.757	74.376	1.00	23.29	B C
ATOM	5998	O	ARG	40	93.881	49.793	74.150	1.00	23.24	B O
ATOM	5999	N	LYS	41	94.494	51.907	73.725	1.00	23.55	B N
ATOM	6000	CA	LYS	41	93.518	52.076	72.658	1.00	24.31	B C
ATOM	6001	CB	LYS	41	93.386	53.556	72.274	1.00	25.29	B C
ATOM	6002	CG	LYS	41	94.699	54.209	71.827	1.00	29.38	B C
ATOM	6003	CD	LYS	41	94.505	55.663	71.365	1.00	28.84	B C
ATOM	6004	CE	LYS	41	94.374	55.779	69.840	1.00	28.95	B C
ATOM	6005	NZ	LYS	41	93.307	54.922	69.251	1.00	27.49	B N
ATOM	6006	C	LYS	41	94.028	51.294	71.458	1.00	24.04	B C
ATOM	6007	O	LYS	41	95.231	51.072	71.324	1.00	24.69	B O
ATOM	6008	N	THR	42	93.118	50.859	70.595	1.00	23.54	B N
ATOM	6009	CA	THR	42	93.518	50.130	69.399	1.00	22.29	B C
ATOM	6010	CB	THR	42	92.454	49.083	68.959	1.00	22.69	B C
ATOM	6011	OG1	THR	42	91.257	49.753	68.540	1.00	21.91	B O
ATOM	6012	CG2	THR	42	92.128	48.129	70.101	1.00	20.28	B C
ATOM	6013	C	THR	42	93.641	51.178	68.304	1.00	22.33	B C
ATOM	6014	O	THR	42	93.386	52.363	68.541	1.00	23.36	B O
ATOM	6015	N	TYR	43	94.045	50.750	67.116	1.00	20.55	B N
ATOM	6016	CA	TYR	43	94.158	51.662	65.986	1.00	19.19	B C
ATOM	6017	CB	TYR	43	95.233	51.153	65.020	1.00	20.32	B C
ATOM	6018	CG	TYR	43	95.516	52.062	63.853	1.00	19.92	B C
ATOM	6019	CD1	TYR	43	94.888	51.863	62.629	1.00	22.19	B C
ATOM	6020	CE1	TYR	43	95.133	52.694	61.546	1.00	21.23	B C
ATOM	6021	CD2	TYR	43	96.403	53.126	63.970	1.00	21.09	B C
ATOM	6022	CE2	TYR	43	96.655	53.972	62.891	1.00	21.69	B C
ATOM	6023	CZ	TYR	43	96.013	53.742	61.682	1.00	22.25	B C
ATOM	6024	OH	TYR	43	96.247	54.553	60.600	1.00	25.44	B O
ATOM	6025	C	TYR	43	92.770	51.631	65.349	1.00	18.52	B C
ATOM	6026	O	TYR	43	92.396	50.640	64.725	1.00	17.41	B O

(Continued)

FIG. 4-124

ATOM	6027	N	THR	44	92.007	52.709	65.532	1.00	17.70	B N
ATOM	6028	CA	THR	44	90.633	52.802	65.019	1.00	18.55	B C
ATOM	6029	CB	THR	44	89.762	53.748	65.877	1.00	16.45	B C
ATOM	6030	OG1	THR	44	90.195	55.096	65.676	1.00	16.93	B O
ATOM	6031	CG2	THR	44	89.875	53.409	67.346	1.00	14.45	B C
ATOM	6032	C	THR	44	90.521	53.310	63.593	1.00	19.62	B C
ATOM	6033	O	THR	44	91.511	53.741	62.992	1.00	21.89	B O
ATOM	6034	N	LEU	45	89.296	53.277	63.067	1.00	19.06	B N
ATOM	6035	CA	LEU	45	89.026	53.749	61.713	1.00	18.74	B C
ATOM	6036	CB	LEU	45	87.570	53.489	61.327	1.00	17.33	B C
ATOM	6037	CG	LEU	45	87.163	54.032	59.952	1.00	17.35	B C
ATOM	6038	CD1	LEU	45	88.050	53.417	58.873	1.00	15.87	B C
ATOM	6039	CD2	LEU	45	85.698	53.720	59.681	1.00	16.27	B C
ATOM	6040	C	LEU	45	89.300	55.240	61.638	1.00	19.82	B C
ATOM	6041	O	LEU	45	89.827	55.743	60.638	1.00	21.32	B O
ATOM	6042	N	THR	46	88.948	55.945	62.707	1.00	19.07	B N
ATOM	6043	CA	THR	46	89.156	57.382	62.760	1.00	20.55	B C
ATOM	6044	CB	THR	46	88.550	57.988	64.038	1.00	21.32	B C
ATOM	6045	OG1	THR	46	87.148	57.700	64.083	1.00	21.56	B O
ATOM	6046	CG2	THR	46	88.745	59.497	64.053	1.00	20.61	B C
ATOM	6047	C	THR	46	90.634	57.749	62.694	1.00	21.16	B C
ATOM	6048	O	THR	46	90.999	58.759	62.092	1.00	21.06	B O
ATOM	6049	N	ASP	47	91.491	56.945	63.313	1.00	21.00	B N
ATOM	6050	CA	ASP	47	92.910	57.253	63.262	1.00	22.97	B C
ATOM	6051	CB	ASP	47	93.731	56.273	64.110	1.00	25.34	B C
ATOM	6052	CG	ASP	47	93.365	56.322	65.578	1.00	27.23	B C
ATOM	6053	OD1	ASP	47	93.116	57.430	66.105	1.00	26.32	B O
ATOM	6054	OD2	ASP	47	93.339	55.244	66.208	1.00	31.41	B O
ATOM	6055	C	ASP	47	93.357	57.178	61.810	1.00	22.85	B C
ATOM	6056	O	ASP	47	94.057	58.065	61.320	1.00	24.15	B O
ATOM	6057	N	TYR	48	92.951	56.124	61.114	1.00	20.92	B N
ATOM	6058	CA	TYR	48	93.332	55.998	59.720	1.00	21.40	B C
ATOM	6059	CB	TYR	48	92.823	54.676	59.136	1.00	19.45	B C
ATOM	6060	CG	TYR	48	92.867	54.612	57.624	1.00	18.60	B C
ATOM	6061	CD1	TYR	48	94.062	54.787	56.927	1.00	18.00	B C
ATOM	6062	CE1	TYR	48	94.098	54.734	55.531	1.00	16.57	B C
ATOM	6063	CD2	TYR	48	91.702	54.383	56.885	1.00	21.30	B C
ATOM	6064	CE2	TYR	48	91.726	54.329	55.489	1.00	19.50	B C
ATOM	6065	CZ	TYR	48	92.925	54.503	54.822	1.00	18.43	B C
ATOM	6066	OH	TYR	48	92.942	54.434	53.452	1.00	18.40	B O
ATOM	6067	C	TYR	48	92.795	57.170	58.899	1.00	21.85	B C
ATOM	6068	O	TYR	48	93.547	57.853	58.207	1.00	21.92	B O
ATOM	6069	N	LEU	49	91.497	57.416	58.996	1.00	23.08	B N
ATOM	6070	CA	LEU	49	90.885	58.485	58.223	1.00	26.78	B C
ATOM	6071	CB	LEU	49	89.359	58.437	58.381	1.00	28.14	B C
ATOM	6072	CG	LEU	49	88.688	57.157	57.872	1.00	28.75	B C
ATOM	6073	CD1	LEU	49	87.188	57.305	57.980	1.00	28.04	B C
ATOM	6074	CD2	LEU	49	89.094	56.889	56.420	1.00	28.45	B C
ATOM	6075	C	LEU	49	91.391	59.886	58.544	1.00	28.33	B C

(Continued)

FIG. 4 - 125

ATOM	6076	O	LEU	49	91.404	60.758	57.673	1.00 28.77	B	O
ATOM	6077	N	LYS	50	91.818	60.098	59.784	1.00 30.17	B	N
ATOM	6078	CA	LYS	50	92.299	61.407	60.204	1.00 30.95	B	C
ATOM	6079	CB	LYS	50	91.668	61.769	61.543	1.00 31.36	B	C
ATOM	6080	CG	LYS	50	90.159	61.743	61.478	1.00 33.25	B	C
ATOM	6081	CD	LYS	50	89.649	62.710	60.420	1.00 34.69	B	C
ATOM	6082	CE	LYS	50	88.239	62.353	59.970	1.00 36.08	B	C
ATOM	6083	NZ	LYS	50	87.310	62.113	61.113	1.00 37.00	B	N
ATOM	6084	C	LYS	50	93.811	61.543	60.288	1.00 31.05	B	C
ATOM	6085	O	LYS	50	94.325	62.622	60.577	1.00 32.05	B	O
ATOM	6086	N	ASN	51	94.525	60.456	60.033	1.00 30.75	B	N
ATOM	6087	CA	ASN	51	95.978	60.493	60.074	1.00 31.14	B	C
ATOM	6088	CB	ASN	51	96.502	61.541	59.090	1.00 33.97	B	C
ATOM	6089	CG	ASN	51	95.964	61.344	57.689	1.00 37.06	B	C
ATOM	6090	OD1	ASN	51	96.358	60.416	56.986	1.00 39.83	B	O
ATOM	6091	ND2	ASN	51	95.047	62.215	57.277	1.00 40.54	B	N
ATOM	6092	C	ASN	51	96.472	60.828	61.471	1.00 29.86	B	C
ATOM	6093	O	ASN	51	97.474	61.524	61.624	1.00 31.03	B	O
ATOM	6094	N	THR	52	95.770	60.335	62.486	1.00 27.96	B	N
ATOM	6095	CA	THR	52	96.152	60.587	63.870	1.00 26.81	B	C
ATOM	6096	CB	THR	52	95.315	59.742	64.854	1.00 27.15	B	C
ATOM	6097	OG1	THR	52	93.930	60.058	64.698	1.00 27.72	B	O
ATOM	6098	CG2	THR	52	95.724	60.030	66.291	1.00 25.06	B	C
ATOM	6099	C	THR	52	97.622	60.259	64.090	1.00 26.88	B	C
ATOM	6100	O	THR	52	98.274	60.867	64.934	1.00 27.07	B	O
ATOM	6101	N	TYR	53	98.141	59.298	63.328	1.00 26.35	B	N
ATOM	6102	CA	TYR	53	99.541	58.900	63.450	1.00 27.48	B	C
ATOM	6103	CB	TYR	53	99.632	57.446	63.899	1.00 24.69	B	C
ATOM	6104	CG	TYR	53	98.937	57.209	65.207	1.00 24.64	B	C
ATOM	6105	CD1	TYR	53	99.433	57.761	66.389	1.00 24.67	B	C
ATOM	6106	CE1	TYR	53	98.782	57.566	67.600	1.00 24.44	B	C
ATOM	6107	CD2	TYR	53	97.768	56.454	65.268	1.00 22.60	B	C
ATOM	6108	CE2	TYR	53	97.107	56.255	66.474	1.00 24.81	B	C
ATOM	6109	CZ	TYR	53	97.622	56.813	67.634	1.00 25.33	B	C
ATOM	6110	OH	TYR	53	96.981	56.609	68.826	1.00 25.74	B	O
ATOM	6111	C	TYR	53	100.279	59.076	62.131	1.00 29.01	B	C
ATOM	6112	O	TYR	53	100.187	58.234	61.239	1.00 30.80	B	O
ATOM	6113	N	ARG	54	101.024	60.168	62.019	1.00 30.00	B	N
ATOM	6114	CA	ARG	54	101.760	60.456	60.801	1.00 29.57	B	C
ATOM	6115	CB	ARG	54	101.718	61.955	60.498	1.00 32.42	B	C
ATOM	6116	CG	ARG	54	100.360	62.449	60.020	1.00 38.51	B	C
ATOM	6117	CD	ARG	54	100.364	63.945	59.724	1.00 42.89	B	C
ATOM	6118	NE	ARG	54	99.157	64.354	59.008	1.00 46.94	B	N
ATOM	6119	CZ	ARG	54	98.812	63.893	57.808	1.00 48.52	B	C
ATOM	6120	NH1	ARG	54	99.585	63.008	57.190	1.00 50.08	B	N
ATOM	6121	NH2	ARG	54	97.697	64.314	57.224	1.00 47.87	B	N
ATOM	6122	C	ARG	54	103.202	59.992	60.803	1.00 27.73	B	C
ATOM	6123	O	ARG	54	103.934	60.168	61.776	1.00 26.62	B	O
ATOM	6124	N	LEU	55	103.596	59.384	59.693	1.00 25.96	B	N

FIG. 4-126 (Continued)

ATOM	6125	CA	LEU	55	104.959	58.926	59.515	1.00	24.45	B	C
ATOM	6126	CB	LEU	55	105.025	57.911	58.382	1.00	22.51	B	C
ATOM	6127	CG	LEU	55	104.335	56.575	58.631	1.00	23.77	B	C
ATOM	6128	CD1	LEU	55	104.287	55.792	57.336	1.00	23.51	B	C
ATOM	6129	CD2	LEU	55	105.083	55.796	59.703	1.00	22.83	B	C
ATOM	6130	C	LEU	55	105.773	60.161	59.135	1.00	24.19	B	C
ATOM	6131	O	LEU	55	105.428	60.867	58.187	1.00	23.47	B	O
ATOM	6132	N	LYS	56	106.824	60.456	59.886	1.00	23.25	B	N
ATOM	6133	CA	LYS	56	107.631	61.603	59.532	1.00	23.81	B	C
ATOM	6134	CB	LYS	56	108.536	62.028	60.680	1.00	25.76	B	C
ATOM	6135	CG	LYS	56	107.850	62.922	61.697	1.00	29.15	B	C
ATOM	6136	CD	LYS	56	108.868	63.560	62.638	1.00	31.22	B	C
ATOM	6137	CE	LYS	56	108.225	64.593	63.548	1.00	32.59	B	C
ATOM	6138	NZ	LYS	56	109.235	65.233	64.439	1.00	34.54	B	N
ATOM	6139	C	LYS	56	108.458	61.196	58.330	1.00	23.35	B	C
ATOM	6140	O	LYS	56	108.833	60.035	58.186	1.00	23.24	B	O
ATOM	6141	N	LEU	57	108.717	62.162	57.462	1.00	22.99	B	N
ATOM	6142	CA	LEU	57	109.477	61.945	56.247	1.00	22.29	B	C
ATOM	6143	CB	LEU	57	108.612	62.292	55.040	1.00	23.21	B	C
ATOM	6144	CG	LEU	57	107.169	61.794	55.037	1.00	23.82	B	C
ATOM	6145	CD1	LEU	57	106.440	62.380	53.841	1.00	24.84	B	C
ATOM	6146	CD2	LEU	57	107.145	60.278	54.992	1.00	25.36	B	C
ATOM	6147	C	LEU	57	110.681	62.870	56.256	1.00	22.04	B	C
ATOM	6148	O	LEU	57	110.888	63.628	57.202	1.00	22.65	B	O
ATOM	6149	N	TYR	58	111.468	62.809	55.191	1.00	20.44	B	N
ATOM	6150	CA	TYR	58	112.624	63.674	55.065	1.00	20.14	B	C
ATOM	6151	CB	TYR	58	113.834	63.089	55.795	1.00	19.94	B	C
ATOM	6152	CG	TYR	58	114.933	64.099	56.008	1.00	18.95	B	C
ATOM	6153	CD1	TYR	58	115.845	64.392	54.998	1.00	19.13	B	C
ATOM	6154	CE1	TYR	58	116.816	65.380	55.165	1.00	18.92	B	C
ATOM	6155	CD2	TYR	58	115.022	64.816	57.201	1.00	19.88	B	C
ATOM	6156	CE2	TYR	58	115.987	65.807	57.378	1.00	19.69	B	C
ATOM	6157	CZ	TYR	58	116.877	66.086	56.355	1.00	19.43	B	C
ATOM	6158	OH	TYR	58	117.804	67.092	56.508	1.00	19.58	B	O
ATOM	6159	C	TYR	58	112.917	63.819	53.590	1.00	20.38	B	C
ATOM	6160	O	TYR	58	113.861	63.223	53.079	1.00	20.32	B	O
ATOM	6161	N	SER	59	112.085	64.604	52.909	1.00	21.33	B	N
ATOM	6162	CA	SER	59	112.245	64.839	51.479	1.00	22.11	B	C
ATOM	6163	CB	SER	59	110.920	65.275	50.852	1.00	21.08	B	C
ATOM	6164	OG	SER	59	109.985	64.212	50.843	1.00	24.94	B	O
ATOM	6165	C	SER	59	113.293	65.895	51.191	1.00	21.64	B	C
ATOM	6166	O	SER	59	113.099	67.064	51.491	1.00	23.87	B	O
ATOM	6167	N	LEU	60	114.404	65.485	50.602	1.00	21.76	B	N
ATOM	6168	CA	LEU	60	115.449	66.436	50.273	1.00	23.50	B	C
ATOM	6169	CB	LEU	60	116.752	66.062	50.986	1.00	22.27	B	C
ATOM	6170	CG	LEU	60	117.406	64.737	50.612	1.00	18.62	B	C
ATOM	6171	CD1	LEU	60	118.176	64.900	49.320	1.00	17.05	B	C
ATOM	6172	CD2	LEU	60	118.338	64.313	51.724	1.00	19.95	B	C
ATOM	6173	C	LEU	60	115.656	66.478	48.762	1.00	24.93	B	C

(Continued)

FIG. 4-127

ATOM	6174	O	LEU	60	115.176	65.604	48.029	1.00 23.79	B	O
ATOM	6175	N	ARG	61	116.375	67.495	48.302	1.00 26.02	B	N
ATOM	6176	CA	ARG	61	116.634	67.659	46.881	1.00 27.11	B	C
ATOM	6177	CB	ARG	61	115.693	68.728	46.329	1.00 32.13	B	C
ATOM	6178	CG	ARG	61	115.779	68.979	44.833	1.00 38.27	B	C
ATOM	6179	CD	ARG	61	115.002	70.243	44.495	1.00 41.78	B	C
ATOM	6180	NE	ARG	61	114.937	70.506	43.063	1.00 46.51	B	N
ATOM	6181	CZ	ARG	61	114.298	71.543	42.525	1.00 49.47	B	C
ATOM	6182	NH1	ARG	61	113.671	72.420	43.307	1.00 48.74	B	N
ATOM	6183	NH2	ARG	61	114.266	71.693	41.205	1.00 50.07	B	N
ATOM	6184	C	ARG	61	118.080	68.075	46.676	1.00 26.01	B	C
ATOM	6185	O	ARG	61	118.475	69.180	47.052	1.00 26.36	B	O
ATOM	6186	N	TRP	62	118.877	67.186	46.095	1.00 25.15	B	N
ATOM	6187	CA	TRP	62	120.282	67.488	45.846	1.00 24.48	B	C
ATOM	6188	CB	TRP	62	121.024	66.244	45.355	1.00 20.04	B	C
ATOM	6189	CG	TRP	62	121.095	65.145	46.365	1.00 18.16	B	C
ATOM	6190	CD2	TRP	62	121.954	65.092	47.508	1.00 14.54	B	C
ATOM	6191	CE2	TRP	62	121.639	63.910	48.215	1.00 15.18	B	C
ATOM	6192	CE3	TRP	62	122.956	65.932	48.007	1.00 12.41	B	C
ATOM	6193	CD1	TRP	62	120.315	64.017	46.419	1.00 17.39	B	C
ATOM	6194	NE1	TRP	62	120.639	63.272	47.528	1.00 15.77	B	N
ATOM	6195	CZ2	TRP	62	122.292	63.546	49.397	1.00 16.35	B	C
ATOM	6196	CZ3	TRP	62	123.606	65.575	49.183	1.00 14.94	B	C
ATOM	6197	CH2	TRP	62	123.271	64.389	49.866	1.00 16.25	B	C
ATOM	6198	C	TRP	62	120.401	68.588	44.798	1.00 26.73	B	C
ATOM	6199	O	TRP	62	119.863	68.457	43.698	1.00 27.86	B	O
ATOM	6200	N	ILE	63	121.088	69.675	45.135	1.00 27.97	B	N
ATOM	6201	CA	ILE	63	121.265	70.763	44.180	1.00 29.02	B	C
ATOM	6202	CB	ILE	63	120.947	72.130	44.803	1.00 29.64	B	C
ATOM	6203	CG2	ILE	63	119.476	72.193	45.169	1.00 30.36	B	C
ATOM	6204	CG1	ILE	63	121.830	72.372	46.027	1.00 30.01	B	C
ATOM	6205	CD1	ILE	63	121.542	73.682	46.736	1.00 27.88	B	C
ATOM	6206	C	ILE	63	122.693	70.771	43.657	1.00 30.19	B	C
ATOM	6207	O	ILE	63	123.062	71.609	42.835	1.00 31.12	B	O
ATOM	6208	N	SER	64	123.485	69.816	44.132	1.00 30.03	B	N
ATOM	6209	CA	SER	64	124.876	69.668	43.718	1.00 30.53	B	C
ATOM	6210	CB	SER	64	125.734	70.808	44.269	1.00 29.46	B	C
ATOM	6211	OG	SER	64	125.848	70.724	45.679	1.00 27.92	B	O
ATOM	6212	C	SER	64	125.399	68.343	44.255	1.00 31.08	B	C
ATOM	6213	O	SER	64	124.630	67.488	44.691	1.00 31.36	B	O
ATOM	6214	N	ASP	65	126.712	68.176	44.236	1.00 31.42	B	N
ATOM	6215	CA	ASP	65	127.306	66.947	44.728	1.00 32.55	B	C
ATOM	6216	CB	ASP	65	128.576	66.633	43.945	1.00 33.28	B	C
ATOM	6217	CG	ASP	65	129.158	65.286	44.302	1.00 35.12	B	C
ATOM	6218	OD1	ASP	65	128.446	64.261	44.158	1.00 33.02	B	O
ATOM	6219	OD2	ASP	65	130.331	65.259	44.728	1.00 37.02	B	O
ATOM	6220	C	ASP	65	127.636	67.045	46.211	1.00 32.66	B	C
ATOM	6221	O	ASP	65	128.076	66.069	46.818	1.00 31.78	B	O
ATOM	6222	N	HIS	66	127.399	68.217	46.796	1.00 33.06	B	N

(Continued)

FIG. 4-128

ATOM	6223	CA	HIS	66	127.704	68.440	48.203	1.00	32.64	B C
ATOM	6224	CB	HIS	66	128.892	69.402	48.329	1.00	35.63	B C
ATOM	6225	CG	HIS	66	130.032	69.076	47.416	1.00	39.09	B C
ATOM	6226	CD2	HIS	66	131.260	68.562	47.669	1.00	40.29	B C
ATOM	6227	ND1	HIS	66	129.959	69.238	46.047	1.00	41.80	B N
ATOM	6228	CE1	HIS	66	131.092	68.835	45.498	1.00	42.37	B C
ATOM	6229	NE2	HIS	66	131.897	68.420	46.459	1.00	42.11	B N
ATOM	6230	C	HIS	66	126.547	69.001	49.016	1.00	31.01	B C
ATOM	6231	O	HIS	66	126.602	69.008	50.245	1.00	30.92	B O
ATOM	6232	N	GLU	67	125.505	69.479	48.345	1.00	30.05	B N
ATOM	6233	CA	GLU	67	124.379	70.067	49.062	1.00	28.07	B C
ATOM	6234	CB	GLU	67	124.457	71.591	48.984	1.00	27.21	B C
ATOM	6235	CG	GLU	67	125.601	72.179	49.781	1.00	29.99	B C
ATOM	6236	CD	GLU	67	125.745	73.675	49.593	1.00	32.09	B C
ATOM	6237	OE1	GLU	67	126.408	74.315	50.438	1.00	33.25	B O
ATOM	6238	OE2	GLU	67	125.207	74.209	48.599	1.00	34.83	B O
ATOM	6239	C	GLU	67	123.015	69.619	48.583	1.00	27.52	B C
ATOM	6240	O	GLU	67	122.872	69.085	47.482	1.00	27.10	B O
ATOM	6241	N	TYR	68	122.012	69.855	49.425	1.00	26.72	B N
ATOM	6242	CA	TYR	68	120.634	69.498	49.116	1.00	25.74	B C
ATOM	6243	CB	TYR	68	120.347	68.069	49.592	1.00	23.47	B C
ATOM	6244	CG	TYR	68	120.373	67.847	51.094	1.00	22.93	B C
ATOM	6245	CD1	TYR	68	119.339	68.319	51.914	1.00	22.75	B C
ATOM	6246	CE1	TYR	68	119.312	68.040	53.282	1.00	21.24	B C
ATOM	6247	CD2	TYR	68	121.391	67.097	51.685	1.00	22.05	B C
ATOM	6248	CE2	TYR	68	121.379	66.812	53.053	1.00	22.38	B C
ATOM	6249	CZ	TYR	68	120.333	67.283	53.847	1.00	23.05	B C
ATOM	6250	OH	TYR	68	120.300	66.973	55.191	1.00	18.34	B O
ATOM	6251	C	TYR	68	119.657	70.481	49.759	1.00	26.00	B C
ATOM	6252	O	TYR	68	119.961	71.077	50.789	1.00	26.50	B O
ATOM	6253	N	LEU	69	118.497	70.674	49.139	1.00	26.72	B N
ATOM	6254	CA	LEU	69	117.492	71.580	49.694	1.00	27.89	B C
ATOM	6255	CB	LEU	69	116.729	72.316	48.586	1.00	24.29	B C
ATOM	6256	CG	LEU	69	117.545	73.257	47.695	1.00	23.81	B C
ATOM	6257	CD1	LEU	69	116.656	73.891	46.633	1.00	19.95	B C
ATOM	6258	CD2	LEU	69	118.187	74.324	48.552	1.00	24.79	B C
ATOM	6259	C	LEU	69	116.508	70.777	50.543	1.00	29.18	B C
ATOM	6260	O	LEU	69	116.226	69.609	50.260	1.00	28.86	B O
ATOM	6261	N	TYR	70	115.998	71.411	51.590	1.00	29.78	B N
ATOM	6262	CA	TYR	70	115.057	70.765	52.482	1.00	31.48	B C
ATOM	6263	CB	TYR	70	115.799	70.142	53.667	1.00	28.76	B C
ATOM	6264	CG	TYR	70	114.910	69.348	54.592	1.00	26.47	B C
ATOM	6265	CD1	TYR	70	114.396	68.114	54.206	1.00	25.75	B C
ATOM	6266	CE1	TYR	70	113.544	67.398	55.038	1.00	26.40	B C
ATOM	6267	CD2	TYR	70	114.553	69.847	55.842	1.00	28.33	B C
ATOM	6268	CE2	TYR	70	113.701	69.141	56.686	1.00	28.03	B C
ATOM	6269	CZ	TYR	70	113.199	67.918	56.276	1.00	28.21	B C
ATOM	6270	OH	TYR	70	112.346	67.221	57.103	1.00	30.20	B O
ATOM	6271	C	TYR	70	114.056	71.796	52.983	1.00	34.45	B C

(Continued)

FIG. 4-129

ATOM	6272	O	TYR	70	114.425	72.914	53.336	1.00	33.43	B O
ATOM	6273	N	LYS	71	112.787	71.410	53.002	1.00	39.59	B N
ATOM	6274	CA	LYS	71	111.714	72.284	53.461	1.00	44.28	B C
ATOM	6275	CB	LYS	71	110.408	71.904	52.763	1.00	45.57	B C
ATOM	6276	CG	LYS	71	109.994	72.828	51.640	1.00	48.26	B C
ATOM	6277	CD	LYS	71	109.416	74.116	52.192	1.00	51.24	B C
ATOM	6278	CE	LYS	71	108.213	73.827	53.075	1.00	53.11	B C
ATOM	6279	NZ	LYS	71	107.193	73.012	52.354	1.00	54.56	B N
ATOM	6280	C	LYS	71	111.523	72.186	54.973	1.00	46.60	B C
ATOM	6281	O	LYS	71	110.789	71.323	55.457	1.00	46.95	B O
ATOM	6282	N	GLN	72	112.192	73.055	55.723	1.00	49.39	B N
ATOM	6283	CA	GLN	72	112.040	73.042	57.172	1.00	52.01	B C
ATOM	6284	CB	GLN	72	113.145	73.853	57.851	1.00	51.69	B C
ATOM	6285	CG	GLN	72	113.126	73.763	59.373	1.00	52.37	B C
ATOM	6286	CD	GLN	72	113.582	72.412	59.895	1.00	51.86	B C
ATOM	6287	OE1	GLN	72	114.778	72.161	60.048	1.00	50.84	B O
ATOM	6288	NE2	GLN	72	112.629	71.530	60.161	1.00	52.39	B N
ATOM	6289	C	GLN	72	110.690	73.691	57.427	1.00	54.22	B C
ATOM	6290	O	GLN	72	109.890	73.814	56.498	1.00	54.44	B O
ATOM	6291	N	GLU	73	110.447	74.100	58.672	1.00	56.57	B N
ATOM	6292	CA	GLU	73	109.197	74.745	59.075	1.00	58.47	B C
ATOM	6293	CB	GLU	73	109.498	76.089	59.738	1.00	60.20	B C
ATOM	6294	CG	GLU	73	110.530	76.022	60.861	1.00	62.04	B C
ATOM	6295	CD	GLU	73	110.065	75.206	62.055	1.00	62.79	B C
ATOM	6296	OE1	GLU	73	110.815	75.145	63.053	1.00	64.53	B O
ATOM	6297	OE2	GLU	73	108.957	74.628	62.001	1.00	62.71	B O
ATOM	6298	C	GLU	73	108.293	74.962	57.867	1.00	59.40	B C
ATOM	6299	O	GLU	73	107.242	74.329	57.733	1.00	61.08	B O
ATOM	6300	N	ASN	74	108.717	75.863	56.989	1.00	58.30	B N
ATOM	6301	CA	ASN	74	107.987	76.156	55.768	1.00	57.33	B C
ATOM	6302	CB	ASN	74	106.771	77.035	56.054	1.00	59.07	B C
ATOM	6303	CG	ASN	74	105.474	76.399	55.581	1.00	60.80	B C
ATOM	6304	OD1	ASN	74	105.350	76.006	54.418	1.00	61.62	B O
ATOM	6305	ND2	ASN	74	104.501	76.293	56.482	1.00	60.69	B N
ATOM	6306	C	ASN	74	108.938	76.858	54.815	1.00	56.35	B C
ATOM	6307	O	ASN	74	108.666	76.979	53.620	1.00	56.72	B O
ATOM	6308	N	ASN	75	110.059	77.321	55.355	1.00	54.35	B N
ATOM	6309	CA	ASN	75	111.064	77.984	54.544	1.00	52.33	B C
ATOM	6310	CB	ASN	75	111.793	79.055	55.355	1.00	55.77	B C
ATOM	6311	CG	ASN	75	111.992	78.659	56.793	1.00	57.61	B C
ATOM	6312	OD1	ASN	75	112.467	77.563	57.088	1.00	60.07	B O
ATOM	6313	ND2	ASN	75	111.635	79.556	57.705	1.00	59.51	B N
ATOM	6314	C	ASN	75	112.048	76.943	54.026	1.00	49.25	B C
ATOM	6315	O	ASN	75	112.052	75.798	54.477	1.00	49.19	B O
ATOM	6316	N	ILE	76	112.883	77.343	53.077	1.00	45.23	B N
ATOM	6317	CA	ILE	76	113.837	76.424	52.483	1.00	41.55	B C
ATOM	6318	CB	ILE	76	113.871	76.616	50.962	1.00	41.68	B C
ATOM	6319	CG2	ILE	76	114.705	75.524	50.310	1.00	41.39	B C
ATOM	6320	CG1	ILE	76	112.445	76.583	50.415	1.00	40.24	B C

(Continued)

FIG. 4-130

ATOM	6321	CD1	ILE	76	112.341	77.009	48.967	1.00	42.01	B	C
ATOM	6322	C	ILE	76	115.243	76.589	53.043	1.00	39.85	B	C
ATOM	6323	O	ILE	76	115.758	77.701	53.150	1.00	41.15	B	O
ATOM	6324	N	LEU	77	115.862	75.472	53.400	1.00	36.42	B	N
ATOM	6325	CA	LEU	77	117.208	75.498	53.941	1.00	34.22	B	C
ATOM	6326	CB	LEU	77	117.227	74.901	55.351	1.00	34.28	B	C
ATOM	6327	CG	LEU	77	116.155	75.359	56.346	1.00	34.54	B	C
ATOM	6328	CD1	LEU	77	116.435	74.728	57.701	1.00	33.23	B	C
ATOM	6329	CD2	LEU	77	116.149	76.874	56.460	1.00	34.45	B	C
ATOM	6330	C	LEU	77	118.121	74.683	53.036	1.00	32.91	B	C
ATOM	6331	O	LEU	77	117.657	73.821	52.289	1.00	32.49	B	O
ATOM	6332	N	VAL	78	119.417	74.967	53.103	1.00	30.72	B	N
ATOM	6333	CA	VAL	78	120.409	74.253	52.308	1.00	29.87	B	C
ATOM	6334	CB	VAL	78	121.227	75.227	51.431	1.00	30.20	B	C
ATOM	6335	CG1	VAL	78	122.327	74.480	50.691	1.00	29.01	B	C
ATOM	6336	CG2	VAL	78	120.311	75.906	50.448	1.00	31.37	B	C
ATOM	6337	C	VAL	78	121.346	73.523	53.263	1.00	28.37	B	C
ATOM	6338	O	VAL	78	121.781	74.087	54.261	1.00	28.38	B	O
ATOM	6339	N	PHE	79	121.660	72.272	52.956	1.00	26.51	B	N
ATOM	6340	CA	PHE	79	122.530	71.496	53.821	1.00	24.85	B	C
ATOM	6341	CB	PHE	79	121.807	70.247	54.338	1.00	24.45	B	C
ATOM	6342	CG	PHE	79	120.680	70.531	55.296	1.00	22.62	B	C
ATOM	6343	CD1	PHE	79	119.499	71.120	54.857	1.00	20.15	B	C
ATOM	6344	CD2	PHE	79	120.789	70.168	56.636	1.00	19.84	B	C
ATOM	6345	CE1	PHE	79	118.448	71.338	55.733	1.00	20.35	B	C
ATOM	6346	CE2	PHE	79	119.749	70.382	57.513	1.00	16.96	B	C
ATOM	6347	CZ	PHE	79	118.573	70.967	57.065	1.00	18.97	B	C
ATOM	6348	C	PHE	79	123.815	71.036	53.151	1.00	24.95	B	C
ATOM	6349	O	PHE	79	123.841	70.729	51.960	1.00	24.94	B	O
ATOM	6350	N	ASN	80	124.876	70.992	53.948	1.00	23.66	B	N
ATOM	6351	CA	ASN	80	126.174	70.518	53.517	1.00	23.32	B	C
ATOM	6352	CB	ASN	80	127.276	71.307	54.220	1.00	22.91	B	C
ATOM	6353	CG	ASN	80	128.653	70.689	54.032	1.00	22.91	B	C
ATOM	6354	OD1	ASN	80	128.916	69.567	54.486	1.00	23.26	B	O
ATOM	6355	ND2	ASN	80	129.542	71.421	53.364	1.00	21.99	B	N
ATOM	6356	C	ASN	80	126.156	69.077	54.018	1.00	24.17	B	C
ATOM	6357	O	ASN	80	126.168	68.842	55.222	1.00	25.80	B	O
ATOM	6358	N	ALA	81	126.116	68.116	53.105	1.00	23.17	B	N
ATOM	6359	CA	ALA	81	126.054	66.713	53.496	1.00	24.07	B	C
ATOM	6360	CB	ALA	81	126.025	65.819	52.246	1.00	20.69	B	C
ATOM	6361	C	ALA	81	127.167	66.256	54.434	1.00	25.23	B	C
ATOM	6362	O	ALA	81	126.925	65.462	55.347	1.00	25.26	B	O
ATOM	6363	N	GLU	82	128.377	66.764	54.222	1.00	26.73	B	N
ATOM	6364	CA	GLU	82	129.525	66.351	55.024	1.00	29.51	B	C
ATOM	6365	CB	GLU	82	130.820	66.835	54.361	1.00	32.02	B	C
ATOM	6366	CG	GLU	82	132.124	66.326	55.005	1.00	35.72	B	C
ATOM	6367	CD	GLU	82	132.287	64.800	54.955	1.00	38.90	B	C
ATOM	6368	OE1	GLU	82	132.064	64.191	53.884	1.00	38.71	B	O
ATOM	6369	OE2	GLU	82	132.659	64.209	55.995	1.00	40.81	B	O

(Continued)

FIG. 4-131

ATOM	6370	C	GLU	82	129.528	66.757	56.497	1.00	29.17	B	C
ATOM	6371	O	GLU	82	130.102	66.051	57.324	1.00	28.55	B	O
ATOM	6372	N	TYR	83	128.888	67.872	56.834	1.00	29.07	B	N
ATOM	6373	CA	TYR	83	128.877	68.329	58.223	1.00	28.95	B	C
ATOM	6374	CB	TYR	83	129.504	69.722	58.320	1.00	30.17	B	C
ATOM	6375	CG	TYR	83	130.821	69.834	57.596	1.00	33.40	B	C
ATOM	6376	CD1	TYR	83	131.914	69.049	57.963	1.00	33.79	B	C
ATOM	6377	CE1	TYR	83	133.120	69.129	57.271	1.00	36.07	B	C
ATOM	6378	CD2	TYR	83	130.966	70.704	56.517	1.00	35.97	B	C
ATOM	6379	CE2	TYR	83	132.162	70.791	55.815	1.00	36.91	B	C
ATOM	6380	CZ	TYR	83	133.234	70.003	56.195	1.00	38.12	B	C
ATOM	6381	OH	TYR	83	134.413	70.091	55.486	1.00	42.42	B	O
ATOM	6382	C	TYR	83	127.490	68.355	58.853	1.00	28.16	B	C
ATOM	6383	O	TYR	83	127.340	68.093	60.044	1.00	29.04	B	O
ATOM	6384	N	GLY	84	126.478	68.684	58.063	1.00	25.68	B	N
ATOM	6385	CA	GLY	84	125.136	68.726	58.601	1.00	24.77	B	C
ATOM	6386	C	GLY	84	124.668	70.137	58.880	1.00	24.95	B	C
ATOM	6387	O	GLY	84	123.511	70.345	59.222	1.00	23.68	B	O
ATOM	6388	N	ASN	85	125.565	71.109	58.745	1.00	26.40	B	N
ATOM	6389	CA	ASN	85	125.201	72.501	58.984	1.00	27.79	B	C
ATOM	6390	CB	ASN	85	126.446	73.366	59.181	1.00	28.01	B	C
ATOM	6391	CG	ASN	85	127.356	73.363	57.975	1.00	31.32	B	C
ATOM	6392	OD1	ASN	85	128.051	72.384	57.697	1.00	31.73	B	O
ATOM	6393	ND2	ASN	85	127.338	74.472	57.250	1.00	33.71	B	N
ATOM	6394	C	ASN	85	124.381	73.023	57.813	1.00	28.62	B	C
ATOM	6395	O	ASN	85	124.432	72.472	56.720	1.00	28.74	B	O
ATOM	6396	N	SER	86	123.622	74.085	58.043	1.00	30.17	B	N
ATOM	6397	CA	SER	86	122.787	74.633	56.991	1.00	32.38	B	C
ATOM	6398	CB	SER	86	121.392	74.005	57.061	1.00	31.71	B	C
ATOM	6399	OG	SER	86	120.734	74.380	58.256	1.00	32.32	B	O
ATOM	6400	C	SER	86	122.658	76.145	57.063	1.00	33.63	B	C
ATOM	6401	O	SER	86	123.307	76.800	57.874	1.00	34.72	B	O
ATOM	6402	N	SER	87	121.806	76.682	56.195	1.00	35.45	B	N
ATOM	6403	CA	SER	87	121.530	78.111	56.115	1.00	35.95	B	C
ATOM	6404	CB	SER	87	122.588	78.825	55.280	1.00	35.50	B	C
ATOM	6405	OG	SER	87	123.887	78.635	55.810	1.00	39.27	B	O
ATOM	6406	C	SER	87	120.191	78.233	55.418	1.00	36.74	B	C
ATOM	6407	O	SER	87	119.832	77.369	54.625	1.00	38.47	B	O
ATOM	6408	N	VAL	88	119.444	79.288	55.723	1.00	37.17	B	N
ATOM	6409	CA	VAL	88	118.154	79.498	55.084	1.00	36.32	B	C
ATOM	6410	CB	VAL	88	117.357	80.636	55.750	1.00	37.21	B	C
ATOM	6411	CG1	VAL	88	116.094	80.916	54.954	1.00	36.84	B	C
ATOM	6412	CG2	VAL	88	117.006	80.260	57.186	1.00	38.04	B	C
ATOM	6413	C	VAL	88	118.422	79.897	53.647	1.00	36.83	B	C
ATOM	6414	O	VAL	88	119.235	80.782	53.379	1.00	36.34	B	O
ATOM	6415	N	PHE	89	117.745	79.240	52.719	1.00	36.53	B	N
ATOM	6416	CA	PHE	89	117.925	79.552	51.314	1.00	37.05	B	C
ATOM	6417	CB	PHE	89	117.901	78.262	50.491	1.00	34.62	B	C
ATOM	6418	CG	PHE	89	118.060	78.474	49.014	1.00	31.67	B	C

(Continued)

FIG. 4-132

ATOM	6419	CD1	PHE	89	116.963	78.790	48.223	1.00	29.04	B	C
ATOM	6420	CD2	PHE	89	119.303	78.333	48.412	1.00	31.62	B	C
ATOM	6421	CE1	PHE	89	117.095	78.958	46.857	1.00	28.72	B	C
ATOM	6422	CE2	PHE	89	119.450	78.500	47.038	1.00	32.27	B	C
ATOM	6423	CZ	PHE	89	118.342	78.813	46.258	1.00	30.91	B	C
ATOM	6424	C	PHE	89	116.801	80.483	50.896	1.00	39.38	B	C
ATOM	6425	O	PHE	89	116.901	81.188	49.892	1.00	39.89	B	O
ATOM	6426	N	LEU	90	115.733	80.493	51.688	1.00	41.53	B	N
ATOM	6427	CA	LEU	90	114.581	81.332	51.403	1.00	43.78	B	C
ATOM	6428	CB	LEU	90	113.849	80.788	50.173	1.00	44.69	B	C
ATOM	6429	CG	LEU	90	112.818	81.664	49.462	1.00	44.94	B	C
ATOM	6430	CD1	LEU	90	113.439	83.000	49.088	1.00	44.39	B	C
ATOM	6431	CD2	LEU	90	112.328	80.944	48.217	1.00	44.54	B	C
ATOM	6432	C	LEU	90	113.653	81.348	52.613	1.00	45.79	B	C
ATOM	6433	O	LEU	90	113.192	80.302	53.062	1.00	44.77	B	O
ATOM	6434	N	GLU	91	113.395	82.542	53.140	1.00	49.59	B	N
ATOM	6435	CA	GLU	91	112.524	82.715	54.302	1.00	51.78	B	C
ATOM	6436	CB	GLU	91	112.571	84.166	54.790	1.00	53.90	B	C
ATOM	6437	CG	GLU	91	113.950	84.663	55.199	1.00	58.64	B	C
ATOM	6438	CD	GLU	91	114.432	84.070	56.511	1.00	61.93	B	C
ATOM	6439	OE1	GLU	91	114.607	82.835	56.585	1.00	64.17	B	O
ATOM	6440	OE2	GLU	91	114.639	84.843	57.472	1.00	63.53	B	O
ATOM	6441	C	GLU	91	111.083	82.352	53.961	1.00	52.17	B	C
ATOM	6442	O	GLU	91	110.549	82.777	52.939	1.00	50.91	B	O
ATOM	6443	N	ASN	92	110.452	81.576	54.835	1.00	53.63	B	N
ATOM	6444	CA	ASN	92	109.073	81.146	54.631	1.00	54.46	B	C
ATOM	6445	CB	ASN	92	108.654	80.205	55.761	1.00	55.64	B	C
ATOM	6446	CG	ASN	92	108.451	80.934	57.074	1.00	57.59	B	C
ATOM	6447	OD1	ASN	92	109.140	81.914	57.362	1.00	59.33	B	O
ATOM	6448	ND2	ASN	92	107.512	80.451	57.885	1.00	57.67	B	N
ATOM	6449	C	ASN	92	108.116	82.336	54.581	1.00	53.80	B	C
ATOM	6450	O	ASN	92	106.924	82.171	54.328	1.00	53.09	B	O
ATOM	6451	N	SER	93	108.646	83.532	54.818	1.00	53.62	B	N
ATOM	6452	CA	SER	93	107.833	84.744	54.813	1.00	53.91	B	C
ATOM	6453	CB	SER	93	108.078	85.527	56.100	1.00	53.85	B	C
ATOM	6454	OG	SER	93	109.438	85.905	56.196	1.00	54.56	B	O
ATOM	6455	C	SER	93	108.097	85.658	53.618	1.00	53.82	B	C
ATOM	6456	O	SER	93	107.391	86.646	53.421	1.00	52.94	B	O
ATOM	6457	N	THR	94	109.107	85.322	52.819	1.00	54.56	B	N
ATOM	6458	CA	THR	94	109.473	86.127	51.656	1.00	54.56	B	C
ATOM	6459	CB	THR	94	110.616	85.473	50.858	1.00	54.40	B	C
ATOM	6460	OG1	THR	94	110.837	86.210	49.648	1.00	53.65	B	O
ATOM	6461	CG2	THR	94	110.268	84.040	50.515	1.00	55.54	B	C
ATOM	6462	C	THR	94	108.330	86.418	50.689	1.00	54.94	B	C
ATOM	6463	O	THR	94	108.424	87.339	49.878	1.00	55.42	B	O
ATOM	6464	N	PHE	95	107.256	85.640	50.762	1.00	54.35	B	N
ATOM	6465	CA	PHE	95	106.125	85.865	49.873	1.00	54.57	B	C
ATOM	6466	CB	PHE	95	105.956	84.681	48.914	1.00	53.35	B	C
ATOM	6467	CG	PHE	95	107.158	84.426	48.043	1.00	52.21	B	C

(Continued)

FIG. 4-133

ATOM	6468	CD1	PHE	95	107.978	83.326	48.268	1.00	51.86	B	C
ATOM	6469	CD2	PHE	95	107.476	85.290	47.005	1.00	51.89	B	C
ATOM	6470	CE1	PHE	95	109.095	83.091	47.473	1.00	50.37	B	C
ATOM	6471	CE2	PHE	95	108.594	85.061	46.205	1.00	51.43	B	C
ATOM	6472	CZ	PHE	95	109.403	83.960	46.441	1.00	50.62	B	C
ATOM	6473	C	PHE	95	104.825	86.105	50.639	1.00	55.66	B	C
ATOM	6474	O	PHE	95	103.740	85.784	50.149	1.00	55.16	B	O
ATOM	6475	N	ASP	96	104.941	86.681	51.835	1.00	56.69	B	N
ATOM	6476	CA	ASP	96	103.775	86.964	52.668	1.00	57.24	B	C
ATOM	6477	CB	ASP	96	104.167	87.785	53.900	1.00	58.96	B	C
ATOM	6478	CG	ASP	96	104.793	86.945	54.993	1.00	60.91	B	C
ATOM	6479	OD1	ASP	96	104.234	85.875	55.321	1.00	60.82	B	O
ATOM	6480	OD2	ASP	96	105.835	87.366	55.538	1.00	62.59	B	O
ATOM	6481	C	ASP	96	102.674	87.712	51.933	1.00	57.24	B	C
ATOM	6482	O	ASP	96	101.498	87.401	52.100	1.00	58.26	B	O
ATOM	6483	N	GLU	97	103.050	88.703	51.130	1.00	57.07	B	N
ATOM	6484	CA	GLU	97	102.068	89.496	50.395	1.00	57.68	B	C
ATOM	6485	CB	GLU	97	102.389	90.994	50.512	1.00	59.15	B	C
ATOM	6486	CG	GLU	97	102.397	91.553	51.935	1.00	61.76	B	C
ATOM	6487	CD	GLU	97	103.629	91.140	52.729	1.00	63.57	B	C
ATOM	6488	OE1	GLU	97	103.714	91.490	53.927	1.00	63.88	B	O
ATOM	6489	OE2	GLU	97	104.514	90.467	52.155	1.00	64.73	B	O
ATOM	6490	C	GLU	97	101.970	89.123	48.917	1.00	56.86	B	C
ATOM	6491	O	GLU	97	101.652	89.972	48.080	1.00	58.05	B	O
ATOM	6492	N	PHE	98	102.234	87.859	48.598	1.00	54.75	B	N
ATOM	6493	CA	PHE	98	102.181	87.393	47.214	1.00	52.58	B	C
ATOM	6494	CB	PHE	98	102.730	85.965	47.117	1.00	52.53	B	C
ATOM	6495	CG	PHE	98	102.792	85.434	45.713	1.00	51.74	B	C
ATOM	6496	CD1	PHE	98	103.564	86.073	44.749	1.00	50.75	B	C
ATOM	6497	CD2	PHE	98	102.064	84.305	45.348	1.00	51.54	B	C
ATOM	6498	CE1	PHE	98	103.609	85.597	43.445	1.00	50.51	B	C
ATOM	6499	CE2	PHE	98	102.103	83.822	44.044	1.00	50.40	B	C
ATOM	6500	CZ	PHE	98	102.876	84.469	43.092	1.00	49.83	B	C
ATOM	6501	C	PHE	98	100.764	87.448	46.641	1.00	51.24	B	C
ATOM	6502	O	PHE	98	100.578	87.544	45.427	1.00	50.42	B	O
ATOM	6503	N	GLY	99	99.770	87.383	47.523	1.00	50.67	B	N
ATOM	6504	CA	GLY	99	98.383	87.441	47.094	1.00	48.74	B	C
ATOM	6505	C	GLY	99	97.918	86.192	46.376	1.00	47.41	B	C
ATOM	6506	O	GLY	99	97.020	86.246	45.540	1.00	48.42	B	O
ATOM	6507	N	HIS	100	98.530	85.065	46.712	1.00	45.49	B	N
ATOM	6508	CA	HIS	100	98.200	83.780	46.104	1.00	43.24	B	C
ATOM	6509	CB	HIS	100	98.787	83.686	44.694	1.00	41.93	B	C
ATOM	6510	CG	HIS	100	98.004	84.414	43.651	1.00	39.37	B	C
ATOM	6511	CD2	HIS	100	98.345	85.437	42.833	1.00	38.83	B	C
ATOM	6512	ND1	HIS	100	96.711	84.075	43.321	1.00	39.65	B	N
ATOM	6513	CE1	HIS	100	96.288	84.857	42.344	1.00	38.90	B	C
ATOM	6514	NE2	HIS	100	97.262	85.691	42.029	1.00	38.71	B	N
ATOM	6515	C	HIS	100	98.822	82.677	46.940	1.00	42.56	B	C
ATOM	6516	O	HIS	100	99.916	82.846	47.473	1.00	43.12	B	O

(Continued)

FIG. 4-134

ATOM	6517	N	SER	101	98.139	81.547	47.063	1.00	41.90	B	N
ATOM	6518	CA	SER	101	98.716	80.442	47.817	1.00	43.20	B	C
ATOM	6519	CB	SER	101	97.623	79.527	48.382	1.00	43.41	B	C
ATOM	6520	OG	SER	101	96.852	78.931	47.354	1.00	44.00	B	O
ATOM	6521	C	SER	101	99.582	79.680	46.820	1.00	42.92	B	C
ATOM	6522	O	SER	101	99.083	79.213	45.794	1.00	43.33	B	O
ATOM	6523	N	ILE	102	100.880	79.584	47.095	1.00	41.90	B	N
ATOM	6524	CA	ILE	102	101.762	78.874	46.183	1.00	42.10	B	C
ATOM	6525	CB	ILE	102	103.255	79.286	46.369	1.00	43.10	B	C
ATOM	6526	CG2	ILE	102	103.370	80.811	46.404	1.00	43.52	B	C
ATOM	6527	CG1	ILE	102	103.824	78.700	47.660	1.00	45.01	B	C
ATOM	6528	CD1	ILE	102	105.294	79.038	47.895	1.00	46.96	B	C
ATOM	6529	C	ILE	102	101.598	77.380	46.415	1.00	41.08	B	C
ATOM	6530	O	ILE	102	101.677	76.901	47.544	1.00	41.27	B	O
ATOM	6531	N	ASN	103	101.342	76.648	45.339	1.00	40.05	B	N
ATOM	6532	CA	ASN	103	101.157	75.211	45.434	1.00	39.20	B	C
ATOM	6533	CB	ASN	103	100.502	74.674	44.163	1.00	39.98	B	C
ATOM	6534	CG	ASN	103	100.190	73.199	44.257	1.00	39.82	B	C
ATOM	6535	OD1	ASN	103	99.355	72.784	45.056	1.00	40.83	B	O
ATOM	6536	ND2	ASN	103	100.866	72.396	43.448	1.00	40.75	B	N
ATOM	6537	C	ASN	103	102.486	74.508	45.645	1.00	37.42	B	C
ATOM	6538	O	ASN	103	102.601	73.614	46.475	1.00	38.46	B	O
ATOM	6539	N	ASP	104	103.491	74.912	44.880	1.00	35.77	B	N
ATOM	6540	CA	ASP	104	104.808	74.303	44.982	1.00	34.14	B	C
ATOM	6541	CB	ASP	104	104.819	72.955	44.248	1.00	33.54	B	C
ATOM	6542	CG	ASP	104	105.987	72.072	44.655	1.00	34.77	B	C
ATOM	6543	OD1	ASP	104	106.061	70.919	44.178	1.00	33.72	B	O
ATOM	6544	OD2	ASP	104	106.835	72.525	45.453	1.00	35.84	B	O
ATOM	6545	C	ASP	104	105.827	75.253	44.367	1.00	33.07	B	C
ATOM	6546	O	ASP	104	105.461	76.218	43.695	1.00	33.54	B	O
ATOM	6547	N	TYR	105	107.103	74.985	44.607	1.00	32.32	B	N
ATOM	6548	CA	TYR	105	108.167	75.824	44.082	1.00	31.45	B	C
ATOM	6549	CB	TYR	105	108.854	76.573	45.220	1.00	32.58	B	C
ATOM	6550	CG	TYR	105	109.515	75.662	46.218	1.00	35.82	B	C
ATOM	6551	CD1	TYR	105	110.859	75.306	46.091	1.00	36.01	B	C
ATOM	6552	CE1	TYR	105	111.465	74.453	47.009	1.00	36.30	B	C
ATOM	6553	CD2	TYR	105	108.791	75.138	47.287	1.00	37.55	B	C
ATOM	6554	CE2	TYR	105	109.387	74.282	48.208	1.00	38.47	B	C
ATOM	6555	CZ	TYR	105	110.719	73.947	48.065	1.00	37.17	B	C
ATOM	6556	OH	TYR	105	111.293	73.106	48.984	1.00	38.67	B	O
ATOM	6557	C	TYR	105	109.180	74.972	43.347	1.00	30.07	B	C
ATOM	6558	O	TYR	105	109.048	73.754	43.276	1.00	29.32	B	O
ATOM	6559	N	SER	106	110.203	75.623	42.815	1.00	28.45	B	N
ATOM	6560	CA	SER	106	111.236	74.938	42.059	1.00	26.63	B	C
ATOM	6561	CB	SER	106	110.648	74.391	40.758	1.00	24.49	B	C
ATOM	6562	OG	SER	106	111.662	74.145	39.806	1.00	24.16	B	O
ATOM	6563	C	SER	106	112.341	75.926	41.745	1.00	26.32	B	C
ATOM	6564	O	SER	106	112.168	76.821	40.919	1.00	28.04	B	O
ATOM	6565	N	ILE	107	113.475	75.770	42.413	1.00	25.01	B	N

(Continued)

FIG. 4-135

ATOM	6566	CA	ILE	107	114.602	76.662	42.196	1.00 24.30	B	C
ATOM	6567	CB	ILE	107	115.634	76.576	43.354	1.00 21.79	B	C
ATOM	6568	CG2	ILE	107	116.885	77.328	42.987	1.00 21.05	B	C
ATOM	6569	CG1	ILE	107	115.050	77.161	44.639	1.00 21.30	B	C
ATOM	6570	CD1	ILE	107	114.056	76.271	45.321	1.00 23.96	B	C
ATOM	6571	C	ILE	107	115.315	76.305	40.901	1.00 25.00	B	C
ATOM	6572	O	ILE	107	115.418	75.132	40.548	1.00 27.32	B	O
ATOM	6573	N	SER	108	115.788	77.320	40.187	1.00 24.67	B	N
ATOM	6574	CA	SER	108	116.534	77.102	38.959	1.00 24.23	B	C
ATOM	6575	CB	SER	108	116.936	78.439	38.350	1.00 23.85	B	C
ATOM	6576	OG	SER	108	117.786	79.144	39.245	1.00 23.56	B	O
ATOM	6577	C	SER	108	117.789	76.347	39.403	1.00 25.01	B	C
ATOM	6578	O	SER	108	118.223	76.484	40.546	1.00 25.28	B	O
ATOM	6579	N	PRO	109	118.394	75.554	38.508	1.00 25.25	B	N
ATOM	6580	CD	PRO	109	118.003	75.282	37.115	1.00 25.10	B	C
ATOM	6581	CA	PRO	109	119.600	74.798	38.869	1.00 26.01	B	C
ATOM	6582	CB	PRO	109	120.023	74.172	37.547	1.00 24.74	B	C
ATOM	6583	CG	PRO	109	118.722	73.983	36.836	1.00 25.99	B	C
ATOM	6584	C	PRO	109	120.726	75.619	39.499	1.00 27.62	B	C
ATOM	6585	O	PRO	109	121.413	75.139	40.403	1.00 28.26	B	O
ATOM	6586	N	ASP	110	120.923	76.847	39.026	1.00 28.44	B	N
ATOM	6587	CA	ASP	110	121.988	77.691	39.562	1.00 29.86	B	C
ATOM	6588	CB	ASP	110	122.465	78.689	38.504	1.00 30.74	B	C
ATOM	6589	CG	ASP	110	121.342	79.543	37.960	1.00 32.54	B	C
ATOM	6590	OD1	ASP	110	120.415	79.856	38.730	1.00 33.07	B	O
ATOM	6591	OD2	ASP	110	121.391	79.912	36.767	1.00 33.02	B	O
ATOM	6592	C	ASP	110	121.599	78.449	40.828	1.00 30.83	B	C
ATOM	6593	O	ASP	110	122.379	79.248	41.337	1.00 32.09	B	O
ATOM	6594	N	GLY	111	120.397	78.197	41.335	1.00 31.58	B	N
ATOM	6595	CA	GLY	111	119.945	78.863	42.545	1.00 32.15	B	C
ATOM	6596	C	GLY	111	119.673	80.343	42.357	1.00 32.90	B	C
ATOM	6597	O	GLY	111	119.462	81.074	43.323	1.00 31.87	B	O
ATOM	6598	N	GLN	112	119.666	80.783	41.105	1.00 33.93	B	N
ATOM	6599	CA	GLN	112	119.440	82.184	40.783	1.00 35.14	B	C
ATOM	6600	CB	GLN	112	120.005	82.486	39.396	1.00 36.07	B	C
ATOM	6601	CG	GLN	112	120.885	83.717	39.329	1.00 39.16	B	C
ATOM	6602	CD	GLN	112	122.019	83.551	38.337	1.00 39.62	B	C
ATOM	6603	OE1	GLN	112	122.890	82.697	38.515	1.00 38.31	B	O
ATOM	6604	NE2	GLN	112	122.013	84.363	37.281	1.00 41.28	B	N
ATOM	6605	C	GLN	112	117.970	82.577	40.826	1.00 34.39	B	C
ATOM	6606	O	GLN	112	117.627	83.692	41.225	1.00 35.13	B	O
ATOM	6607	N	PHE	113	117.099	81.667	40.410	1.00 32.82	B	N
ATOM	6608	CA	PHE	113	115.678	81.965	40.401	1.00 31.84	B	C
ATOM	6609	CB	PHE	113	115.185	82.165	38.969	1.00 31.95	B	C
ATOM	6610	CG	PHE	113	115.948	83.204	38.208	1.00 34.16	B	C
ATOM	6611	CD1	PHE	113	117.150	82.886	37.587	1.00 35.65	B	C
ATOM	6612	CD2	PHE	113	115.475	84.508	38.124	1.00 35.41	B	C
ATOM	6613	CE1	PHE	113	117.872	83.853	36.893	1.00 36.00	B	C
ATOM	6614	CE2	PHE	113	116.185	85.479	37.436	1.00 35.02	B	C

(Continued)

FIG. 4-136

ATOM	6615	CZ	PHE	113	117.386	85.152	36.819	1.00	35.71	B C
ATOM	6616	C	PHE	113	114.831	80.896	41.058	1.00	30.65	B C
ATOM	6617	O	PHE	113	115.308	79.829	41.425	1.00	30.90	B O
ATOM	6618	N	ILE	114	113.557	81.205	41.219	1.00	30.09	B N
ATOM	6619	CA	ILE	114	112.630	80.258	41.791	1.00	29.81	B C
ATOM	6620	CB	ILE	114	112.394	80.504	43.293	1.00	28.60	B C
ATOM	6621	CG2	ILE	114	111.911	81.915	43.529	1.00	29.81	B C
ATOM	6622	CG1	ILE	114	111.378	79.490	43.813	1.00	30.57	B C
ATOM	6623	CD1	ILE	114	111.336	79.367	45.325	1.00	33.23	B C
ATOM	6624	C	ILE	114	111.336	80.403	41.019	1.00	29.79	B C
ATOM	6625	O	ILE	114	110.895	81.508	40.715	1.00	28.83	B O
ATOM	6626	N	LEU	115	110.756	79.265	40.671	1.00	30.43	B N
ATOM	6627	CA	LEU	115	109.516	79.223	39.925	1.00	29.05	B C
ATOM	6628	CB	LEU	115	109.596	78.108	38.890	1.00	28.31	B C
ATOM	6629	CG	LEU	115	108.449	77.898	37.912	1.00	28.22	B C
ATOM	6630	CD1	LEU	115	108.425	79.001	36.872	1.00	28.47	B C
ATOM	6631	CD2	LEU	115	108.645	76.553	37.245	1.00	29.52	B C
ATOM	6632	C	LEU	115	108.424	78.923	40.932	1.00	29.59	B C
ATOM	6633	O	LEU	115	108.370	77.824	41.483	1.00	30.72	B O
ATOM	6634	N	LEU	116	107.568	79.901	41.196	1.00	30.29	B N
ATOM	6635	CA	LEU	116	106.479	79.699	42.142	1.00	30.17	B C
ATOM	6636	CB	LEU	116	106.129	81.001	42.861	1.00	31.28	B C
ATOM	6637	CG	LEU	116	107.277	81.741	43.544	1.00	33.66	B C
ATOM	6638	CD1	LEU	116	106.732	82.988	44.229	1.00	33.41	B C
ATOM	6639	CD2	LEU	116	107.957	80.821	44.552	1.00	34.07	B C
ATOM	6640	C	LEU	116	105.270	79.215	41.369	1.00	30.44	B C
ATOM	6641	O	LEU	116	104.835	79.845	40.401	1.00	30.69	B O
ATOM	6642	N	GLU	117	104.724	78.091	41.804	1.00	30.37	B N
ATOM	6643	CA	GLU	117	103.563	77.513	41.159	1.00	29.50	B C
ATOM	6644	CB	GLU	117	103.813	76.017	40.963	1.00	30.63	B C
ATOM	6645	CG	GLU	117	102.671	75.210	40.368	1.00	32.07	B C
ATOM	6646	CD	GLU	117	103.023	73.728	40.270	1.00	33.58	B C
ATOM	6647	OE1	GLU	117	103.772	73.341	39.340	1.00	32.53	B O
ATOM	6648	OE2	GLU	117	102.566	72.956	41.140	1.00	32.35	B O
ATOM	6649	C	GLU	117	102.312	77.756	42.009	1.00	29.67	B C
ATOM	6650	O	GLU	117	102.333	77.583	43.228	1.00	27.89	B O
ATOM	6651	N	TYR	118	101.235	78.184	41.355	1.00	29.27	B N
ATOM	6652	CA	TYR	118	99.966	78.423	42.026	1.00	28.00	B C
ATOM	6653	CB	TYR	118	99.928	79.818	42.643	1.00	29.37	B C
ATOM	6654	CG	TYR	118	100.036	80.955	41.659	1.00	29.69	B C
ATOM	6655	CD1	TYR	118	101.256	81.301	41.092	1.00	30.04	B C
ATOM	6656	CE1	TYR	118	101.355	82.373	40.210	1.00	31.36	B C
ATOM	6657	CD2	TYR	118	98.915	81.703	41.316	1.00	30.41	B C
ATOM	6658	CE2	TYR	118	99.003	82.768	40.439	1.00	31.17	B C
ATOM	6659	CZ	TYR	118	100.222	83.101	39.891	1.00	31.56	B C
ATOM	6660	OH	TYR	118	100.298	84.179	39.039	1.00	33.43	B O
ATOM	6661	C	TYR	118	98.814	78.240	41.038	1.00	27.66	B C
ATOM	6662	O	TYR	118	99.046	77.917	39.874	1.00	26.73	B O
ATOM	6663	N	ASN	119	97.582	78.450	41.499	1.00	27.22	B N

(Continued)

FIG. 4-137

ATOM	6664	CA	ASN	119	96.397	78.261	40.659	1.00	27.10	B C
ATOM	6665	CB	ASN	119	96.422	79.203	39.449	1.00	27.22	B C
ATOM	6666	CG	ASN	119	95.918	80.599	39.777	1.00	27.62	B C
ATOM	6667	OD1	ASN	119	94.905	80.761	40.456	1.00	26.76	B O
ATOM	6668	ND2	ASN	119	96.613	81.612	39.277	1.00	25.87	B N
ATOM	6669	C	ASN	119	96.342	76.810	40.171	1.00	27.88	B C
ATOM	6670	O	ASN	119	95.923	76.534	39.045	1.00	27.93	B O
ATOM	6671	N	TYR	120	96.771	75.888	41.028	1.00	27.57	B N
ATOM	6672	CA	TYR	120	96.795	74.466	40.702	1.00	29.01	B C
ATOM	6673	CB	TYR	120	97.396	73.669	41.866	1.00	30.85	B C
ATOM	6674	CG	TYR	120	97.421	72.171	41.635	1.00	32.83	B C
ATOM	6675	CD1	TYR	120	98.466	71.568	40.940	1.00	33.76	B C
ATOM	6676	CE1	TYR	120	98.484	70.190	40.717	1.00	35.03	B C
ATOM	6677	CD2	TYR	120	96.389	71.358	42.100	1.00	34.41	B C
ATOM	6678	CE2	TYR	120	96.394	69.981	41.880	1.00	34.35	B C
ATOM	6679	CZ	TYR	120	97.444	69.403	41.191	1.00	35.47	B C
ATOM	6680	OH	TYR	120	97.462	68.039	40.987	1.00	35.56	B O
ATOM	6681	C	TYR	120	95.431	73.863	40.364	1.00	29.17	B C
ATOM	6682	O	TYR	120	94.458	74.034	41.099	1.00	31.09	B O
ATOM	6683	N	VAL	121	95.368	73.148	39.248	1.00	27.53	B N
ATOM	6684	CA	VAL	121	94.136	72.487	38.842	1.00	25.45	B C
ATOM	6685	CB	VAL	121	93.358	73.296	37.785	1.00	25.23	B C
ATOM	6686	CG1	VAL	121	92.105	72.534	37.376	1.00	22.18	B C
ATOM	6687	CG2	VAL	121	92.974	74.666	38.354	1.00	21.81	B C
ATOM	6688	C	VAL	121	94.527	71.130	38.275	1.00	24.99	B C
ATOM	6689	O	VAL	121	95.188	71.031	37.242	1.00	24.18	B O
ATOM	6690	N	LYS	122	94.124	70.082	38.977	1.00	24.16	B N
ATOM	6691	CA	LYS	122	94.464	68.735	38.570	1.00	24.24	B C
ATOM	6692	CB	LYS	122	94.295	67.780	39.754	1.00	23.05	B C
ATOM	6693	CG	LYS	122	94.510	66.327	39.390	1.00	20.04	B C
ATOM	6694	CD	LYS	122	94.356	65.416	40.589	1.00	20.19	B C
ATOM	6695	CE	LYS	122	94.402	63.950	40.161	1.00	20.85	B C
ATOM	6696	NZ	LYS	122	93.363	63.632	39.136	1.00	18.96	B N
ATOM	6697	C	LYS	122	93.692	68.180	37.387	1.00	24.10	B C
ATOM	6698	O	LYS	122	92.516	68.488	37.189	1.00	23.23	B O
ATOM	6699	N	GLN	123	94.384	67.368	36.592	1.00	23.36	B N
ATOM	6700	CA	GLN	123	93.758	66.691	35.472	1.00	21.22	B C
ATOM	6701	CB	GLN	123	94.455	67.007	34.145	1.00	20.62	B C
ATOM	6702	CG	GLN	123	93.689	66.433	32.948	1.00	23.42	B C
ATOM	6703	CD	GLN	123	94.242	66.857	31.591	1.00	24.37	B C
ATOM	6704	OE1	GLN	123	95.399	66.606	31.275	1.00	26.71	B O
ATOM	6705	NE2	GLN	123	93.402	67.493	30.779	1.00	23.80	B N
ATOM	6706	C	GLN	123	93.856	65.194	35.805	1.00	20.06	B C
ATOM	6707	O	GLN	123	93.258	64.741	36.786	1.00	17.04	B O
ATOM	6708	N	TRP	124	94.630	64.438	35.030	1.00	17.49	B N
ATOM	6709	CA	TRP	124	94.753	63.009	35.276	1.00	16.75	B C
ATOM	6710	CB	TRP	124	95.165	62.298	33.984	1.00	16.19	B C
ATOM	6711	CG	TRP	124	94.351	62.735	32.797	1.00	18.11	B C
ATOM	6712	CD2	TRP	124	92.939	63.014	32.764	1.00	17.55	B C

(Continued)

FIG. 4-138

ATOM	6713	CE2	TRP	124	92.630	63.449	31.455	1.00	16.84	B	C
ATOM	6714	CE3	TRP	124	91.909	62.942	33.713	1.00	17.02	B	C
ATOM	6715	CD1	TRP	124	94.819	62.999	31.539	1.00	19.00	B	C
ATOM	6716	NE1	TRP	124	93.794	63.429	30.731	1.00	18.26	B	N
ATOM	6717	CZ2	TRP	124	91.331	63.815	31.067	1.00	15.16	B	C
ATOM	6718	CZ3	TRP	124	90.615	63.305	33.326	1.00	16.85	B	C
ATOM	6719	CH2	TRP	124	90.342	63.737	32.011	1.00	16.12	B	C
ATOM	6720	C	TRP	124	95.718	62.679	36.427	1.00	17.28	B	C
ATOM	6721	O	TRP	124	95.816	63.437	37.397	1.00	17.74	B	O
ATOM	6722	N	ARG	125	96.430	61.560	36.339	1.00	15.31	B	N
ATOM	6723	CA	ARG	125	97.317	61.185	37.429	1.00	16.66	B	C
ATOM	6724	CB	ARG	125	97.666	59.702	37.323	1.00	16.96	B	C
ATOM	6725	CG	ARG	125	98.908	59.288	38.076	1.00	18.35	B	C
ATOM	6726	CD	ARG	125	98.689	57.987	38.794	1.00	18.85	B	C
ATOM	6727	NE	ARG	125	98.049	56.965	37.972	1.00	18.57	B	N
ATOM	6728	CZ	ARG	125	97.547	55.842	38.475	1.00	17.58	B	C
ATOM	6729	NH1	ARG	125	96.972	54.944	37.693	1.00	16.96	B	N
ATOM	6730	NH2	ARG	125	97.626	55.621	39.776	1.00	17.03	B	N
ATOM	6731	C	ARG	125	98.582	62.027	37.568	1.00	18.54	B	C
ATOM	6732	O	ARG	125	99.075	62.227	38.674	1.00	18.06	B	O
ATOM	6733	N	HIS	126	99.099	62.533	36.454	1.00	20.06	B	N
ATOM	6734	CA	HIS	126	100.300	63.353	36.487	1.00	18.20	B	C
ATOM	6735	CB	HIS	126	101.391	62.673	35.673	1.00	18.72	B	C
ATOM	6736	CG	HIS	126	101.721	61.295	36.151	1.00	19.88	B	C
ATOM	6737	CD2	HIS	126	101.519	60.084	35.581	1.00	20.06	B	C
ATOM	6738	ND1	HIS	126	102.341	61.054	37.360	1.00	17.75	B	N
ATOM	6739	CE1	HIS	126	102.510	59.753	37.512	1.00	19.55	B	C
ATOM	6740	NE2	HIS	126	102.019	59.142	36.447	1.00	22.65	B	N
ATOM	6741	C	HIS	126	100.079	64.772	35.966	1.00	18.28	B	C
ATOM	6742	O	HIS	126	100.692	65.716	36.462	1.00	18.27	B	O
ATOM	6743	N	SER	127	99.204	64.921	34.974	1.00	16.08	B	N
ATOM	6744	CA	SER	127	98.936	66.230	34.382	1.00	16.78	B	C
ATOM	6745	CB	SER	127	98.209	66.070	33.037	1.00	15.96	B	C
ATOM	6746	OG	SER	127	96.999	65.349	33.179	1.00	17.80	B	O
ATOM	6747	C	SER	127	98.151	67.203	35.261	1.00	16.75	B	C
ATOM	6748	O	SER	127	97.523	66.816	36.247	1.00	17.88	B	O
ATOM	6749	N	TYR	128	98.205	68.473	34.873	1.00	15.65	B	N
ATOM	6750	CA	TYR	128	97.520	69.556	35.559	1.00	17.91	B	C
ATOM	6751	CB	TYR	128	97.815	69.506	37.060	1.00	17.70	B	C
ATOM	6752	CG	TYR	128	99.253	69.796	37.444	1.00	17.20	B	C
ATOM	6753	CD1	TYR	128	99.725	71.107	37.540	1.00	16.17	B	C
ATOM	6754	CE1	TYR	128	101.036	71.375	37.927	1.00	16.04	B	C
ATOM	6755	CD2	TYR	128	100.135	68.759	37.739	1.00	17.12	B	C
ATOM	6756	CE2	TYR	128	101.449	69.016	38.123	1.00	15.90	B	C
ATOM	6757	CZ	TYR	128	101.891	70.322	38.216	1.00	17.19	B	C
ATOM	6758	OH	TYR	128	103.190	70.572	38.603	1.00	20.16	B	O
ATOM	6759	C	TYR	128	97.977	70.897	34.992	1.00	19.77	B	C
ATOM	6760	O	TYR	128	98.970	70.972	34.268	1.00	21.70	B	O
ATOM	6761	N	THR	129	97.239	71.955	35.291	1.00	20.48	B	N

(Continued)

FIG. 4-139

ATOM	6762	CA	THR	129	97.647	73.276	34.840	1.00	22.26	B C
ATOM	6763	CB	THR	129	96.599	73.968	33.950	1.00	23.04	B C
ATOM	6764	OG1	THR	129	95.353	74.045	34.652	1.00	24.93	B O
ATOM	6765	CG2	THR	129	96.428	73.213	32.634	1.00	22.70	B C
ATOM	6766	C	THR	129	97.856	74.136	36.069	1.00	22.23	B C
ATOM	6767	O	THR	129	97.462	73.765	37.182	1.00	20.98	B O
ATOM	6768	N	ALA	130	98.474	75.289	35.854	1.00	22.77	B N
ATOM	6769	CA	ALA	130	98.754	76.222	36.926	1.00	23.41	B C
ATOM	6770	CB	ALA	130	99.789	75.631	37.859	1.00	19.73	B C
ATOM	6771	C	ALA	130	99.269	77.525	36.338	1.00	26.66	B C
ATOM	6772	O	ALA	130	99.514	77.632	35.133	1.00	27.20	B O
ATOM	6773	N	SER	131	99.414	78.523	37.199	1.00	29.67	B N
ATOM	6774	CA	SER	131	99.934	79.818	36.796	1.00	30.14	B C
ATOM	6775	CB	SER	131	99.056	80.948	37.333	1.00	30.56	B C
ATOM	6776	OG	SER	131	97.713	80.775	36.913	1.00	32.67	B O
ATOM	6777	C	SER	131	101.290	79.851	37.463	1.00	31.00	B C
ATOM	6778	O	SER	131	101.448	79.334	38.569	1.00	30.79	B O
ATOM	6779	N	TYR	132	102.272	80.438	36.792	1.00	32.02	B N
ATOM	6780	CA	TYR	132	103.611	80.506	37.347	1.00	31.40	B C
ATOM	6781	CB	TYR	132	104.558	79.634	36.519	1.00	28.72	B C
ATOM	6782	CG	TYR	132	104.179	78.174	36.516	1.00	26.74	B C
ATOM	6783	CD1	TYR	132	103.082	77.721	35.791	1.00	26.31	B C
ATOM	6784	CE1	TYR	132	102.696	76.383	35.834	1.00	26.45	B C
ATOM	6785	CD2	TYR	132	104.887	77.250	37.283	1.00	26.58	B C
ATOM	6786	CE2	TYR	132	104.510	75.911	37.332	1.00	24.63	B C
ATOM	6787	CZ	TYR	132	103.415	75.486	36.609	1.00	25.59	B C
ATOM	6788	OH	TYR	132	103.023	74.171	36.677	1.00	25.63	B O
ATOM	6789	C	TYR	132	104.143	81.929	37.411	1.00	32.91	B C
ATOM	6790	O	TYR	132	103.743	82.790	36.636	1.00	34.01	B O
ATOM	6791	N	ASP	133	105.041	82.165	38.358	1.00	35.11	B N
ATOM	6792	CA	ASP	133	105.674	83.465	38.539	1.00	36.35	B C
ATOM	6793	CB	ASP	133	104.954	84.287	39.614	1.00	38.51	B C
ATOM	6794	CG	ASP	133	103.732	85.008	39.074	1.00	41.22	B C
ATOM	6795	OD1	ASP	133	102.805	84.332	38.580	1.00	42.20	B O
ATOM	6796	OD2	ASP	133	103.702	86.253	39.139	1.00	42.84	B O
ATOM	6797	C	ASP	133	107.112	83.228	38.954	1.00	35.61	B C
ATOM	6798	O	ASP	133	107.385	82.438	39.855	1.00	35.76	B O
ATOM	6799	N	ILE	134	108.031	83.908	38.285	1.00	35.21	B N
ATOM	6800	CA	ILE	134	109.444	83.764	38.585	1.00	34.01	B C
ATOM	6801	CB	ILE	134	110.267	83.750	37.287	1.00	33.62	B C
ATOM	6802	CG2	ILE	134	111.718	83.392	37.593	1.00	31.90	B C
ATOM	6803	CG1	ILE	134	109.649	82.737	36.312	1.00	32.72	B C
ATOM	6804	CD1	ILE	134	110.204	82.794	34.909	1.00	31.29	B C
ATOM	6805	C	ILE	134	109.887	84.911	39.483	1.00	34.02	B C
ATOM	6806	O	ILE	134	109.521	86.065	39.261	1.00	33.25	B O
ATOM	6807	N	TYR	135	110.662	84.573	40.507	1.00	35.09	B N
ATOM	6808	CA	TYR	135	111.167	85.539	41.475	1.00	36.09	B C
ATOM	6809	CB	TYR	135	110.657	85.174	42.868	1.00	36.02	B C
ATOM	6810	CG	TYR	135	111.222	86.011	44.000	1.00	36.66	B C

(Continued)

FIG. 4-140

ATOM	6811	CD1	TYR	135	110.635	87.222	44.363	1.00	34.73	B	C
ATOM	6812	CE1	TYR	135	111.134	87.971	45.424	1.00	34.55	B	C
ATOM	6813	CD2	TYR	135	112.332	85.573	44.729	1.00	35.12	B	C
ATOM	6814	CE2	TYR	135	112.839	86.316	45.786	1.00	35.07	B	C
ATOM	6815	CZ	TYR	135	112.235	87.515	46.131	1.00	35.31	B	C
ATOM	6816	OH	TYR	135	112.740	88.258	47.179	1.00	35.05	B	O
ATOM	6817	C	TYR	135	112.688	85.511	41.470	1.00	38.19	B	C
ATOM	6818	O	TYR	135	113.293	84.517	41.873	1.00	37.81	B	O
ATOM	6819	N	ASP	136	113.304	86.600	41.014	1.00	40.56	B	N
ATOM	6820	CA	ASP	136	114.759	86.692	40.965	1.00	42.09	B	C
ATOM	6821	CB	ASP	136	115.187	87.969	40.237	1.00	42.45	B	C
ATOM	6822	CG	ASP	136	116.690	88.051	40.030	1.00	43.61	B	C
ATOM	6823	OD1	ASP	136	117.107	88.577	38.978	1.00	45.53	B	O
ATOM	6824	OD2	ASP	136	117.456	87.602	40.911	1.00	41.77	B	O
ATOM	6825	C	ASP	136	115.316	86.679	42.382	1.00	43.14	B	C
ATOM	6826	O	ASP	136	114.972	87.522	43.209	1.00	42.49	B	O
ATOM	6827	N	LEU	137	116.181	85.713	42.656	1.00	44.92	B	N
ATOM	6828	CA	LEU	137	116.761	85.577	43.978	1.00	48.26	B	C
ATOM	6829	CB	LEU	137	117.219	84.135	44.182	1.00	48.88	B	C
ATOM	6830	CG	LEU	137	116.058	83.136	44.117	1.00	49.07	B	C
ATOM	6831	CD1	LEU	137	116.582	81.716	43.991	1.00	50.17	B	C
ATOM	6832	CD2	LEU	137	115.199	83.291	45.361	1.00	48.91	B	C
ATOM	6833	C	LEU	137	117.908	86.544	44.228	1.00	50.19	B	C
ATOM	6834	O	LEU	137	118.309	86.750	45.370	1.00	51.45	B	O
ATOM	6835	N	ASN	138	118.429	87.139	43.160	1.00	52.26	B	N
ATOM	6836	CA	ASN	138	119.522	88.096	43.280	1.00	53.21	B	C
ATOM	6837	CB	ASN	138	120.330	88.151	41.983	1.00	54.36	B	C
ATOM	6838	CG	ASN	138	120.728	86.775	41.484	1.00	56.39	B	C
ATOM	6839	OD1	ASN	138	121.232	85.945	42.244	1.00	57.23	B	O
ATOM	6840	ND2	ASN	138	120.512	86.530	40.194	1.00	56.67	B	N
ATOM	6841	C	ASN	138	118.935	89.472	43.567	1.00	54.11	B	C
ATOM	6842	O	ASN	138	119.259	90.101	44.571	1.00	54.39	B	O
ATOM	6843	N	LYS	139	118.064	89.929	42.675	1.00	55.06	B	N
ATOM	6844	CA	LYS	139	117.417	91.228	42.814	1.00	56.16	B	C
ATOM	6845	CB	LYS	139	116.807	91.657	41.480	1.00	56.75	B	C
ATOM	6846	CG	LYS	139	117.726	91.520	40.290	1.00	58.34	B	C
ATOM	6847	CD	LYS	139	116.996	91.874	39.006	1.00	59.63	B	C
ATOM	6848	CE	LYS	139	117.887	91.650	37.793	1.00	61.32	B	C
ATOM	6849	NZ	LYS	139	117.196	91.995	36.518	1.00	62.59	B	N
ATOM	6850	C	LYS	139	116.302	91.183	43.857	1.00	56.78	B	C
ATOM	6851	O	LYS	139	115.669	92.202	44.139	1.00	57.22	B	O
ATOM	6852	N	ARG	140	116.061	90.006	44.425	1.00	57.14	B	N
ATOM	6853	CA	ARG	140	114.994	89.838	45.409	1.00	57.44	B	C
ATOM	6854	CB	ARG	140	115.433	90.341	46.787	1.00	58.40	B	C
ATOM	6855	CG	ARG	140	116.063	89.260	47.649	1.00	61.65	B	C
ATOM	6856	CD	ARG	140	116.091	89.658	49.116	1.00	64.17	B	C
ATOM	6857	NE	ARG	140	116.578	88.575	49.972	1.00	67.20	B	N
ATOM	6858	CZ	ARG	140	115.979	87.394	50.112	1.00	68.02	B	C
ATOM	6859	NH1	ARG	140	114.857	87.124	49.453	1.00	68.21	B	N

(Continued)

FIG. 4-141

ATOM	6860	NH2	ARG	140	116.507	86.478	50.911	1.00	68.11	B	N
ATOM	6861	C	ARG	140	113.697	90.537	44.994	1.00	56.16	B	C
ATOM	6862	O	ARG	140	113.067	91.225	45.795	1.00	56.03	B	O
ATOM	6863	N	GLN	141	113.315	90.363	43.733	1.00	54.56	B	N
ATOM	6864	CA	GLN	141	112.088	90.947	43.205	1.00	53.90	B	C
ATOM	6865	CB	GLN	141	112.367	92.292	42.522	1.00	55.16	B	C
ATOM	6866	CG	GLN	141	113.166	92.203	41.227	1.00	57.86	B	C
ATOM	6867	CD	GLN	141	113.078	93.477	40.400	1.00	59.30	B	C
ATOM	6868	OE1	GLN	141	113.414	94.562	40.875	1.00	60.96	B	O
ATOM	6869	NE2	GLN	141	112.620	93.350	39.158	1.00	58.33	B	N
ATOM	6870	C	GLN	141	111.500	89.965	42.198	1.00	52.05	B	C
ATOM	6871	O	GLN	141	112.230	89.362	41.418	1.00	52.50	B	O
ATOM	6872	N	LEU	142	110.186	89.794	42.213	1.00	50.43	B	N
ATOM	6873	CA	LEU	142	109.564	88.861	41.284	1.00	48.86	B	C
ATOM	6874	CB	LEU	142	108.196	88.415	41.815	1.00	48.84	B	C
ATOM	6875	CG	LEU	142	107.024	89.395	41.857	1.00	48.67	B	C
ATOM	6876	CD1	LEU	142	106.354	89.442	40.489	1.00	49.83	B	C
ATOM	6877	CD2	LEU	142	106.014	88.940	42.905	1.00	47.77	B	C
ATOM	6878	C	LEU	142	109.423	89.467	39.896	1.00	47.71	B	C
ATOM	6879	O	LEU	142	108.890	90.564	39.736	1.00	48.46	B	O
ATOM	6880	N	ILE	143	109.917	88.752	38.891	1.00	45.67	B	N
ATOM	6881	CA	ILE	143	109.835	89.226	37.520	1.00	42.98	B	C
ATOM	6882	CB	ILE	143	110.442	88.208	36.535	1.00	42.34	B	C
ATOM	6883	CG2	ILE	143	110.204	88.659	35.099	1.00	41.35	B	C
ATOM	6884	CG1	ILE	143	111.937	88.055	36.810	1.00	41.52	B	C
ATOM	6885	CD1	ILE	143	112.675	87.257	35.755	1.00	42.12	B	C
ATOM	6886	C	ILE	143	108.385	89.481	37.131	1.00	42.92	B	C
ATOM	6887	O	ILE	143	107.522	88.617	37.292	1.00	41.84	B	O
ATOM	6888	N	THR	144	108.128	90.680	36.620	1.00	43.57	B	N
ATOM	6889	CA	THR	144	106.789	91.065	36.202	1.00	44.05	B	C
ATOM	6890	CB	THR	144	106.332	92.344	36.915	1.00	42.77	B	C
ATOM	6891	OG1	THR	144	107.329	93.358	36.760	1.00	45.33	B	O
ATOM	6892	CG2	THR	144	106.124	92.080	38.388	1.00	43.31	B	C
ATOM	6893	C	THR	144	106.716	91.294	34.701	1.00	44.53	B	C
ATOM	6894	O	THR	144	105.689	91.729	34.186	1.00	46.08	B	O
ATOM	6895	N	GLU	145	107.802	90.988	34.001	1.00	45.05	B	N
ATOM	6896	CA	GLU	145	107.857	91.168	32.557	1.00	46.88	B	C
ATOM	6897	CB	GLU	145	109.069	92.031	32.202	1.00	50.14	B	C
ATOM	6898	CG	GLU	145	109.148	93.319	33.007	1.00	55.05	B	C
ATOM	6899	CD	GLU	145	110.429	94.094	32.760	1.00	57.57	B	C
ATOM	6900	OE1	GLU	145	110.696	94.443	31.591	1.00	60.26	B	O
ATOM	6901	OE2	GLU	145	111.167	94.357	33.737	1.00	59.47	B	O
ATOM	6902	C	GLU	145	107.946	89.822	31.834	1.00	46.87	B	C
ATOM	6903	O	GLU	145	108.648	88.916	32.286	1.00	46.76	B	O
ATOM	6904	N	GLU	146	107.236	89.695	30.714	1.00	46.37	B	N
ATOM	6905	CA	GLU	146	107.241	88.458	29.932	1.00	45.82	B	C
ATOM	6906	CB	GLU	146	108.592	88.284	29.232	1.00	46.20	B	C
ATOM	6907	CG	GLU	146	108.916	89.321	28.163	1.00	45.55	B	C
ATOM	6908	CD	GLU	146	108.011	89.217	26.948	1.00	45.65	B	C

(Continued)

FIG. 4-142

ATOM	6909	OE1	GLU	146	107.685	88.081	26.543	1.00	45.03	B O
ATOM	6910	OE2	GLU	146	107.641	90.269	26.387	1.00	45.44	B O
ATOM	6911	C	GLU	146	106.978	87.241	30.821	1.00	46.25	B C
ATOM	6912	O	GLU	146	107.805	86.334	30.912	1.00	47.62	B O
ATOM	6913	N	ARG	147	105.823	87.221	31.474	1.00	44.79	B N
ATOM	6914	CA	ARG	147	105.475	86.119	32.360	1.00	43.34	B C
ATOM	6915	CB	ARG	147	104.469	86.595	33.410	1.00	44.21	B C
ATOM	6916	CG	ARG	147	104.998	87.678	34.320	1.00	46.85	B C
ATOM	6917	CD	ARG	147	103.995	88.007	35.410	1.00	49.84	B C
ATOM	6918	NE	ARG	147	102.805	88.651	34.866	1.00	53.22	B N
ATOM	6919	CZ	ARG	147	101.733	88.970	35.584	1.00	54.21	B C
ATOM	6920	NH1	ARG	147	101.696	88.699	36.884	1.00	53.97	B N
ATOM	6921	NH2	ARG	147	100.701	89.569	34.999	1.00	54.56	B N
ATOM	6922	C	ARG	147	104.905	84.894	31.648	1.00	41.06	B C
ATOM	6923	O	ARG	147	104.304	84.996	30.580	1.00	41.00	B O
ATOM	6924	N	ILE	148	105.103	83.732	32.259	1.00	38.31	B N
ATOM	6925	CA	ILE	148	104.590	82.485	31.721	1.00	35.74	B C
ATOM	6926	CB	ILE	148	105.019	81.305	32.616	1.00	35.07	B C
ATOM	6927	CG2	ILE	148	104.458	79.996	32.073	1.00	34.22	B C
ATOM	6928	CG1	ILE	148	106.549	81.255	32.679	1.00	33.62	B C
ATOM	6929	CD1	ILE	148	107.104	80.131	33.517	1.00	34.57	B C
ATOM	6930	C	ILE	148	103.069	82.641	31.709	1.00	34.54	B C
ATOM	6931	O	ILE	148	102.492	83.155	32.664	1.00	35.51	B O
ATOM	6932	N	PRO	149	102.401	82.199	30.631	1.00	32.42	B N
ATOM	6933	CD	PRO	149	102.929	81.387	29.525	1.00	30.91	B C
ATOM	6934	CA	PRO	149	100.942	82.321	30.526	1.00	31.27	B C
ATOM	6935	CB	PRO	149	100.632	81.762	29.134	1.00	31.04	B C
ATOM	6936	CG	PRO	149	101.963	81.707	28.437	1.00	31.84	B C
ATOM	6937	C	PRO	149	100.187	81.549	31.592	1.00	31.48	B C
ATOM	6938	O	PRO	149	100.733	80.643	32.221	1.00	30.85	B O
ATOM	6939	N	ASN	150	98.927	81.919	31.794	1.00	31.40	B N
ATOM	6940	CA	ASN	150	98.085	81.206	32.744	1.00	31.30	B C
ATOM	6941	CB	ASN	150	96.832	82.019	33.108	1.00	31.58	B C
ATOM	6942	CG	ASN	150	97.086	83.037	34.211	1.00	32.97	B C
ATOM	6943	OD1	ASN	150	97.676	82.715	35.244	1.00	31.95	B O
ATOM	6944	ND2	ASN	150	96.624	84.271	34.004	1.00	33.51	B N
ATOM	6945	C	ASN	150	97.673	79.929	32.013	1.00	30.52	B C
ATOM	6946	O	ASN	150	97.722	79.864	30.777	1.00	29.37	B O
ATOM	6947	N	ASN	151	97.269	78.917	32.768	1.00	30.16	B N
ATOM	6948	CA	ASN	151	96.859	77.657	32.170	1.00	29.53	B C
ATOM	6949	CB	ASN	151	95.715	77.881	31.186	1.00	33.04	B C
ATOM	6950	CG	ASN	151	94.489	78.474	31.850	1.00	36.73	B C
ATOM	6951	OD1	ASN	151	94.530	79.586	32.376	1.00	38.47	B O
ATOM	6952	ND2	ASN	151	93.389	77.729	31.831	1.00	40.28	B N
ATOM	6953	C	ASN	151	98.023	76.997	31.452	1.00	28.44	B C
ATOM	6954	O	ASN	151	97.856	76.412	30.382	1.00	27.56	B O
ATOM	6955	N	THR	152	99.212	77.111	32.035	1.00	26.08	B N
ATOM	6956	CA	THR	152	100.384	76.489	31.452	1.00	24.37	B C
ATOM	6957	CB	THR	152	101.682	77.069	32.046	1.00	25.30	B C

(Continued)

FIG. 4-143

ATOM	6958	OG1	THR	152	101.862	78.407	31.566	1.00	25.07	B	O
ATOM	6959	CG2	THR	152	102.882	76.231	31.643	1.00	24.98	B	C
ATOM	6960	C	THR	152	100.257	75.012	31.791	1.00	22.65	B	C
ATOM	6961	O	THR	152	99.908	74.652	32.912	1.00	21.72	B	O
ATOM	6962	N	GLN	153	100.531	74.160	30.815	1.00	21.08	B	N
ATOM	6963	CA	GLN	153	100.407	72.730	31.010	1.00	20.14	B	C
ATOM	6964	CB	GLN	153	100.023	72.081	29.691	1.00	20.22	B	C
ATOM	6965	CG	GLN	153	98.688	72.573	29.166	1.00	20.23	B	C
ATOM	6966	CD	GLN	153	98.577	72.461	27.669	1.00	21.29	B	C
ATOM	6967	OE1	GLN	153	99.365	73.054	26.939	1.00	24.47	B	O
ATOM	6968	NE2	GLN	153	97.600	71.703	27.200	1.00	20.51	B	N
ATOM	6969	C	GLN	153	101.650	72.076	31.578	1.00	20.86	B	C
ATOM	6970	O	GLN	153	101.574	70.996	32.154	1.00	22.44	B	O
ATOM	6971	N	TRP	154	102.794	72.729	31.422	1.00	20.43	B	N
ATOM	6972	CA	TRP	154	104.043	72.189	31.934	1.00	18.53	B	C
ATOM	6973	CB	TRP	154	104.387	70.868	31.234	1.00	18.88	B	C
ATOM	6974	CG	TRP	154	105.678	70.257	31.719	1.00	19.59	B	C
ATOM	6975	CD2	TRP	154	105.891	69.559	32.955	1.00	17.98	B	C
ATOM	6976	CE2	TRP	154	107.261	69.232	33.019	1.00	19.74	B	C
ATOM	6977	CE3	TRP	154	105.058	69.184	34.015	1.00	16.08	B	C
ATOM	6978	CD1	TRP	154	106.893	70.316	31.101	1.00	20.53	B	C
ATOM	6979	NE1	TRP	154	107.849	69.705	31.877	1.00	22.41	B	N
ATOM	6980	CZ2	TRP	154	107.819	68.545	34.104	1.00	18.81	B	C
ATOM	6981	CZ3	TRP	154	105.614	68.502	35.097	1.00	14.46	B	C
ATOM	6982	CH2	TRP	154	106.981	68.191	35.130	1.00	14.70	B	C
ATOM	6983	C	TRP	154	105.172	73.186	31.757	1.00	18.38	B	C
ATOM	6984	O	TRP	154	105.159	74.005	30.840	1.00	17.07	B	O
ATOM	6985	N	VAL	155	106.139	73.118	32.658	1.00	18.34	B	N
ATOM	6986	CA	VAL	155	107.280	74.010	32.627	1.00	20.45	B	C
ATOM	6987	CB	VAL	155	107.030	75.298	33.457	1.00	21.97	B	C
ATOM	6988	CG1	VAL	155	106.881	74.954	34.937	1.00	21.60	B	C
ATOM	6989	CG2	VAL	155	108.180	76.281	33.260	1.00	20.89	B	C
ATOM	6990	C	VAL	155	108.439	73.255	33.236	1.00	21.60	B	C
ATOM	6991	O	VAL	155	108.241	72.379	34.075	1.00	21.26	B	O
ATOM	6992	N	THR	156	109.647	73.590	32.806	1.00	22.32	B	N
ATOM	6993	CA	THR	156	110.826	72.929	33.325	1.00	23.44	B	C
ATOM	6994	CB	THR	156	111.028	71.569	32.677	1.00	24.53	B	C
ATOM	6995	OG1	THR	156	112.350	71.113	32.972	1.00	25.64	B	O
ATOM	6996	CG2	THR	156	110.856	71.662	31.166	1.00	25.95	B	C
ATOM	6997	C	THR	156	112.092	73.727	33.094	1.00	24.37	B	C
ATOM	6998	O	THR	156	112.305	74.274	32.010	1.00	25.56	B	O
ATOM	6999	N	TRP	157	112.929	73.795	34.123	1.00	23.78	B	N
ATOM	7000	CA	TRP	157	114.192	74.500	34.021	1.00	22.95	B	C
ATOM	7001	CB	TRP	157	114.848	74.650	35.399	1.00	22.02	B	C
ATOM	7002	CG	TRP	157	114.239	75.678	36.293	1.00	21.39	B	C
ATOM	7003	CD2	TRP	157	114.197	77.091	36.070	1.00	22.25	B	C
ATOM	7004	CE2	TRP	157	113.533	77.668	37.177	1.00	23.29	B	C
ATOM	7005	CE3	TRP	157	114.658	77.928	35.046	1.00	21.12	B	C
ATOM	7006	CD1	TRP	157	113.621	75.460	37.492	1.00	22.04	B	C

(Continued)

FIG. 4-144

ATOM	7007	NE1	TRP	157	113.193	76.650	38.030	1.00	22.01	B N
ATOM	7008	CZ2	TRP	157	113.317	79.051	37.286	1.00	22.77	B C
ATOM	7009	CZ3	TRP	157	114.445	79.299	35.156	1.00	22.58	B C
ATOM	7010	CH2	TRP	157	113.779	79.846	36.270	1.00	21.74	B C
ATOM	7011	C	TRP	157	115.096	73.640	33.153	1.00	22.79	B C
ATOM	7012	O	TRP	157	114.789	72.483	32.882	1.00	23.16	B O
ATOM	7013	N	SER	158	116.198	74.211	32.697	1.00	21.93	B N
ATOM	7014	CA	SER	158	117.154	73.441	31.928	1.00	22.68	B C
ATOM	7015	CB	SER	158	118.104	74.377	31.172	1.00	23.20	B C
ATOM	7016	OG	SER	158	118.550	75.444	31.996	1.00	22.94	B O
ATOM	7017	C	SER	158	117.898	72.667	33.017	1.00	23.12	B C
ATOM	7018	O	SER	158	117.800	73.006	34.198	1.00	23.58	B O
ATOM	7019	N	PRO	159	118.641	71.619	32.650	1.00	23.10	B N
ATOM	7020	CD	PRO	159	118.927	71.096	31.307	1.00	23.69	B C
ATOM	7021	CA	PRO	159	119.362	70.860	33.679	1.00	24.10	B C
ATOM	7022	CB	PRO	159	120.041	69.744	32.886	1.00	24.45	B C
ATOM	7023	CG	PRO	159	119.230	69.660	31.599	1.00	23.97	B C
ATOM	7024	C	PRO	159	120.384	71.738	34.391	1.00	25.41	B C
ATOM	7025	O	PRO	159	120.598	71.619	35.589	1.00	26.39	B O
ATOM	7026	N	VAL	160	121.014	72.619	33.627	1.00	27.71	B N
ATOM	7027	CA	VAL	160	122.031	73.517	34.146	1.00	29.28	B C
ATOM	7028	CB	VAL	160	123.383	73.272	33.438	1.00	30.65	B C
ATOM	7029	CG1	VAL	160	124.421	74.249	33.939	1.00	33.70	B C
ATOM	7030	CG2	VAL	160	123.844	71.840	33.670	1.00	31.96	B C
ATOM	7031	C	VAL	160	121.606	74.952	33.885	1.00	29.74	B C
ATOM	7032	O	VAL	160	120.889	75.224	32.923	1.00	30.93	B O
ATOM	7033	N	GLY	161	122.043	75.866	34.745	1.00	29.32	B N
ATOM	7034	CA	GLY	161	121.706	77.266	34.562	1.00	28.43	B C
ATOM	7035	C	GLY	161	120.289	77.645	34.944	1.00	28.19	B C
ATOM	7036	O	GLY	161	119.839	77.359	36.053	1.00	30.02	B O
ATOM	7037	N	HIS	162	119.584	78.296	34.025	1.00	26.53	B N
ATOM	7038	CA	HIS	162	118.222	78.721	34.290	1.00	25.12	B C
ATOM	7039	CB	HIS	162	118.214	79.959	35.177	1.00	26.70	B C
ATOM	7040	CG	HIS	162	119.019	81.094	34.629	1.00	29.24	B C
ATOM	7041	CD2	HIS	162	118.664	82.148	33.857	1.00	30.20	B C
ATOM	7042	ND1	HIS	162	120.378	81.208	34.830	1.00	29.95	B N
ATOM	7043	CE1	HIS	162	120.824	82.283	34.207	1.00	30.75	B C
ATOM	7044	NE2	HIS	162	119.804	82.871	33.608	1.00	30.77	B N
ATOM	7045	C	HIS	162	117.384	79.021	33.059	1.00	24.68	B C
ATOM	7046	O	HIS	162	116.730	80.061	33.007	1.00	24.17	B O
ATOM	7047	N	LYS	163	117.406	78.135	32.067	1.00	22.79	B N
ATOM	7048	CA	LYS	163	116.575	78.340	30.889	1.00	23.10	B C
ATOM	7049	CB	LYS	163	117.113	77.578	29.675	1.00	22.90	B C
ATOM	7050	CG	LYS	163	118.367	78.184	29.063	1.00	23.40	B C
ATOM	7051	CD	LYS	163	118.797	77.407	27.841	1.00	22.69	B C
ATOM	7052	CE	LYS	163	120.103	77.930	27.282	1.00	23.67	B C
ATOM	7053	NZ	LYS	163	120.616	77.045	26.195	1.00	24.56	B N
ATOM	7054	C	LYS	163	115.215	77.779	31.266	1.00	24.15	B C
ATOM	7055	O	LYS	163	115.079	77.104	32.282	1.00	24.69	B O

(Continued)

FIG. 4-145

ATOM	7056	N	LEU	164	114.210	78.062	30.450	1.00	24.82	B N
ATOM	7057	CA	LEU	164	112.870	77.572	30.704	1.00	24.27	B C
ATOM	7058	CB	LEU	164	111.991	78.672	31.293	1.00	25.27	B C
ATOM	7059	CG	LEU	164	112.216	78.969	32.769	1.00	25.61	B C
ATOM	7060	CD1	LEU	164	111.420	80.181	33.178	1.00	25.08	B C
ATOM	7061	CD2	LEU	164	111.802	77.756	33.582	1.00	28.15	B C
ATOM	7062	C	LEU	164	112.231	77.068	29.435	1.00	25.20	B C
ATOM	7063	O	LEU	164	112.438	77.616	28.353	1.00	26.77	B O
ATOM	7064	N	ALA	165	111.461	76.003	29.581	1.00	24.98	B N
ATOM	7065	CA	ALA	165	110.736	75.408	28.479	1.00	23.92	B C
ATOM	7066	CB	ALA	165	111.408	74.127	28.021	1.00	23.20	B C
ATOM	7067	C	ALA	165	109.394	75.106	29.114	1.00	25.13	B C
ATOM	7068	O	ALA	165	109.326	74.494	30.188	1.00	24.88	B O
ATOM	7069	N	TYR	166	108.326	75.565	28.481	1.00	24.06	B N
ATOM	7070	CA	TYR	166	107.016	75.317	29.027	1.00	24.24	B C
ATOM	7071	CB	TYR	166	106.556	76.522	29.866	1.00	27.58	B C
ATOM	7072	CG	TYR	166	106.370	77.826	29.115	1.00	30.69	B C
ATOM	7073	CD1	TYR	166	105.171	78.115	28.465	1.00	31.46	B C
ATOM	7074	CE1	TYR	166	104.981	79.329	27.800	1.00	32.97	B C
ATOM	7075	CD2	TYR	166	107.386	78.787	29.077	1.00	33.05	B C
ATOM	7076	CE2	TYR	166	107.210	80.005	28.412	1.00	34.06	B C
ATOM	7077	CZ	TYR	166	105.999	80.270	27.779	1.00	34.75	B C
ATOM	7078	OH	TYR	166	105.789	81.485	27.162	1.00	34.83	B O
ATOM	7079	C	TYR	166	106.039	75.003	27.917	1.00	23.86	B C
ATOM	7080	O	TYR	166	106.276	75.333	26.754	1.00	22.73	B O
ATOM	7081	N	VAL	167	104.955	74.321	28.266	1.00	22.73	B N
ATOM	7082	CA	VAL	167	103.960	73.994	27.269	1.00	22.82	B C
ATOM	7083	CB	VAL	167	103.687	72.487	27.215	1.00	21.03	B C
ATOM	7084	CG1	VAL	167	102.528	72.200	26.274	1.00	17.71	B C
ATOM	7085	CG2	VAL	167	104.933	71.770	26.725	1.00	20.37	B C
ATOM	7086	C	VAL	167	102.683	74.754	27.564	1.00	23.41	B C
ATOM	7087	O	VAL	167	102.196	74.779	28.692	1.00	24.72	B O
ATOM	7088	N	TRP	168	102.162	75.394	26.531	1.00	23.89	B N
ATOM	7089	CA	TRP	168	100.948	76.179	26.647	1.00	24.11	B C
ATOM	7090	CB	TRP	168	101.314	77.664	26.655	1.00	24.80	B C
ATOM	7091	CG	TRP	168	100.171	78.550	26.958	1.00	27.20	B C
ATOM	7092	CD2	TRP	168	99.572	79.499	26.075	1.00	26.49	B C
ATOM	7093	CE2	TRP	168	98.496	80.091	26.769	1.00	27.49	B C
ATOM	7094	CE3	TRP	168	99.839	79.907	24.763	1.00	27.63	B C
ATOM	7095	CD1	TRP	168	99.461	78.602	28.122	1.00	27.14	B C
ATOM	7096	NE1	TRP	168	98.452	79.526	28.017	1.00	27.81	B N
ATOM	7097	CZ2	TRP	168	97.682	81.074	26.194	1.00	26.74	B C
ATOM	7098	CZ3	TRP	168	99.029	80.886	24.189	1.00	29.25	B C
ATOM	7099	CH2	TRP	168	97.962	81.456	24.910	1.00	28.86	B C
ATOM	7100	C	TRP	168	100.072	75.838	25.444	1.00	22.93	B C
ATOM	7101	O	TRP	168	100.577	75.692	24.328	1.00	21.98	B O
ATOM	7102	N	ASN	169	98.768	75.705	25.675	1.00	21.44	B N
ATOM	7103	CA	ASN	169	97.830	75.350	24.610	1.00	22.01	B C
ATOM	7104	CB	ASN	169	97.394	76.580	23.813	1.00	23.30	B C

(Continued)

FIG. 4-146

ATOM	7105	CG	ASN	169	96.682	77.615	24.662	1.00	27.95	B	C
ATOM	7106	OD1	ASN	169	96.240	78.640	24.150	1.00	32.66	B	O
ATOM	7107	ND2	ASN	169	96.570	77.361	25.961	1.00	30.33	B	N
ATOM	7108	C	ASN	169	98.463	74.345	23.655	1.00	21.23	B	C
ATOM	7109	O	ASN	169	98.455	74.541	22.441	1.00	22.01	B	O
ATOM	7110	N	ASN	170	99.031	73.283	24.221	1.00	20.60	B	N
ATOM	7111	CA	ASN	170	99.661	72.208	23.459	1.00	20.97	B	C
ATOM	7112	CB	ASN	170	98.615	71.515	22.592	1.00	18.68	B	C
ATOM	7113	CG	ASN	170	97.629	70.741	23.412	1.00	18.15	B	C
ATOM	7114	OD1	ASN	170	97.158	71.224	24.440	1.00	16.27	B	O
ATOM	7115	ND2	ASN	170	97.300	69.529	22.966	1.00	18.92	B	N
ATOM	7116	C	ASN	170	100.859	72.581	22.598	1.00	21.31	B	C
ATOM	7117	O	ASN	170	101.194	71.861	21.659	1.00	20.36	B	O
ATOM	7118	N	ASP	171	101.504	73.697	22.916	1.00	22.16	B	N
ATOM	7119	CA	ASP	171	102.671	74.122	22.160	1.00	23.35	B	C
ATOM	7120	CB	ASP	171	102.354	75.364	21.334	1.00	23.05	B	C
ATOM	7121	CG	ASP	171	101.794	75.017	19.978	1.00	23.72	B	C
ATOM	7122	OD1	ASP	171	102.505	74.338	19.210	1.00	23.33	B	O
ATOM	7123	OD2	ASP	171	100.650	75.415	19.679	1.00	26.97	B	O
ATOM	7124	C	ASP	171	103.850	74.380	23.073	1.00	23.59	B	C
ATOM	7125	O	ASP	171	103.672	74.647	24.264	1.00	24.18	B	O
ATOM	7126	N	ILE	172	105.051	74.301	22.508	1.00	23.60	B	N
ATOM	7127	CA	ILE	172	106.273	74.497	23.281	1.00	25.23	B	C
ATOM	7128	CB	ILE	172	107.353	73.456	22.885	1.00	23.64	B	C
ATOM	7129	CG2	ILE	172	108.480	73.466	23.896	1.00	23.11	B	C
ATOM	7130	CG1	ILE	172	106.743	72.056	22.846	1.00	23.95	B	C
ATOM	7131	CD1	ILE	172	107.707	70.986	22.374	1.00	23.66	B	C
ATOM	7132	C	ILE	172	106.878	75.892	23.129	1.00	25.59	B	C
ATOM	7133	O	ILE	172	106.881	76.474	22.048	1.00	25.83	B	O
ATOM	7134	N	TYR	173	107.389	76.414	24.236	1.00	26.85	B	N
ATOM	7135	CA	TYR	173	108.025	77.720	24.272	1.00	27.95	B	C
ATOM	7136	CB	TYR	173	107.111	78.760	24.933	1.00	27.81	B	C
ATOM	7137	CG	TYR	173	105.822	79.002	24.190	1.00	29.53	B	C
ATOM	7138	CD1	TYR	173	104.788	78.063	24.226	1.00	29.72	B	C
ATOM	7139	CE1	TYR	173	103.599	78.271	23.535	1.00	29.08	B	C
ATOM	7140	CD2	TYR	173	105.634	80.162	23.439	1.00	28.71	B	C
ATOM	7141	CE2	TYR	173	104.444	80.381	22.740	1.00	30.14	B	C
ATOM	7142	CZ	TYR	173	103.432	79.429	22.794	1.00	30.82	B	C
ATOM	7143	OH	TYR	173	102.258	79.625	22.103	1.00	31.14	B	O
ATOM	7144	C	TYR	173	109.308	77.592	25.080	1.00	28.66	B	C
ATOM	7145	O	TYR	173	109.412	76.735	25.960	1.00	28.10	B	O
ATOM	7146	N	VAL	174	110.276	78.451	24.782	1.00	29.35	B	N
ATOM	7147	CA	VAL	174	111.551	78.443	25.480	1.00	29.22	B	C
ATOM	7148	CB	VAL	174	112.669	77.855	24.587	1.00	29.66	B	C
ATOM	7149	CG1	VAL	174	114.006	77.936	25.303	1.00	30.07	B	C
ATOM	7150	CG2	VAL	174	112.351	76.403	24.231	1.00	30.25	B	C
ATOM	7151	C	VAL	174	111.953	79.857	25.887	1.00	30.16	B	C
ATOM	7152	O	VAL	174	111.787	80.804	25.125	1.00	31.81	B	O
ATOM	7153	N	LYS	175	112.474	79.990	27.099	1.00	29.78	B	N

(Continued)

FIG. 4-147

ATOM	7154	CA	LYS	175	112.940	81.269	27.608	1.00	28.47	B C
ATOM	7155	CB	LYS	175	112.090	81.725	28.794	1.00	28.38	B C
ATOM	7156	CG	LYS	175	110.809	82.428	28.413	1.00	29.46	B C
ATOM	7157	CD	LYS	175	109.876	82.551	29.611	1.00	32.27	B C
ATOM	7158	CE	LYS	175	110.479	83.384	30.725	1.00	31.57	B C
ATOM	7159	NZ	LYS	175	110.664	84.791	30.307	1.00	33.57	B N
ATOM	7160	C	LYS	175	114.382	81.107	28.064	1.00	28.80	B C
ATOM	7161	O	LYS	175	114.662	80.355	28.999	1.00	28.36	B O
ATOM	7162	N	ILE	176	115.294	81.813	27.401	1.00	28.58	B N
ATOM	7163	CA	ILE	176	116.710	81.764	27.749	1.00	28.19	B C
ATOM	7164	CB	ILE	176	117.572	82.363	26.624	1.00	27.21	B C
ATOM	7165	CG2	ILE	176	118.942	82.730	27.146	1.00	25.54	B C
ATOM	7166	CG1	ILE	176	117.697	81.354	25.483	1.00	28.29	B C
ATOM	7167	CD1	ILE	176	116.377	80.941	24.861	1.00	27.38	B C
ATOM	7168	C	ILE	176	116.956	82.528	29.044	1.00	29.36	B C
ATOM	7169	O	ILE	176	117.910	82.251	29.768	1.00	29.16	B O
ATOM	7170	N	GLU	177	116.085	83.489	29.330	1.00	31.44	B N
ATOM	7171	CA	GLU	177	116.182	84.296	30.543	1.00	33.96	B C
ATOM	7172	CB	GLU	177	116.901	85.611	30.241	1.00	35.87	B C
ATOM	7173	CG	GLU	177	118.342	85.440	29.770	1.00	37.59	B C
ATOM	7174	CD	GLU	177	119.324	85.272	30.916	1.00	39.82	B C
ATOM	7175	OE1	GLU	177	120.511	84.988	30.642	1.00	40.62	B O
ATOM	7176	OE2	GLU	177	118.914	85.433	32.088	1.00	40.43	B O
ATOM	7177	C	GLU	177	114.762	84.569	31.034	1.00	34.61	B C
ATOM	7178	O	GLU	177	113.905	85.007	30.268	1.00	35.24	B O
ATOM	7179	N	PRO	178	114.495	84.312	32.323	1.00	35.55	B N
ATOM	7180	CD	PRO	178	115.451	83.907	33.367	1.00	36.07	B C
ATOM	7181	CA	PRO	178	113.160	84.530	32.894	1.00	35.46	B C
ATOM	7182	CB	PRO	178	113.383	84.357	34.402	1.00	35.40	B C
ATOM	7183	CG	PRO	178	114.862	84.563	34.587	1.00	37.12	B C
ATOM	7184	C	PRO	178	112.451	85.834	32.547	1.00	35.74	B C
ATOM	7185	O	PRO	178	111.225	85.859	32.446	1.00	35.44	B O
ATOM	7186	N	ASN	179	113.198	86.912	32.346	1.00	36.89	B N
ATOM	7187	CA	ASN	179	112.560	88.188	32.021	1.00	37.31	B C
ATOM	7188	CB	ASN	179	113.211	89.329	32.807	1.00	37.54	B C
ATOM	7189	CG	ASN	179	114.454	89.860	32.137	1.00	37.86	B C
ATOM	7190	OD1	ASN	179	115.419	89.131	31.915	1.00	39.14	B O
ATOM	7191	ND2	ASN	179	114.437	91.142	31.806	1.00	40.48	B N
ATOM	7192	C	ASN	179	112.573	88.540	30.535	1.00	36.88	B C
ATOM	7193	O	ASN	179	112.205	89.650	30.159	1.00	38.11	B O
ATOM	7194	N	LEU	180	112.995	87.608	29.689	1.00	35.31	B N
ATOM	7195	CA	LEU	180	113.030	87.875	28.260	1.00	34.44	B C
ATOM	7196	CB	LEU	180	114.357	87.417	27.662	1.00	35.92	B C
ATOM	7197	CG	LEU	180	115.621	88.014	28.279	1.00	36.91	B C
ATOM	7198	CD1	LEU	180	116.828	87.572	27.470	1.00	37.09	B C
ATOM	7199	CD2	LEU	180	115.522	89.536	28.303	1.00	37.24	B C
ATOM	7200	C	LEU	180	111.898	87.166	27.547	1.00	33.52	B C
ATOM	7201	O	LEU	180	111.406	86.149	28.015	1.00	32.50	B O
ATOM	7202	N	PRO	181	111.462	87.704	26.400	1.00	34.20	B N

(Continued)

FIG. 4-148

ATOM	7203	CD	PRO	181	111.853	88.984	25.784	1.00	33.21	B	C
ATOM	7204	CA	PRO	181	110.373	87.075	25.645	1.00	33.57	B	C
ATOM	7205	CB	PRO	181	110.337	87.890	24.357	1.00	33.27	B	C
ATOM	7206	CG	PRO	181	110.691	89.259	24.846	1.00	33.21	B	C
ATOM	7207	C	PRO	181	110.681	85.608	25.397	1.00	33.03	B	C
ATOM	7208	O	PRO	181	111.829	85.180	25.497	1.00	33.18	B	O
ATOM	7209	N	SER	182	109.654	84.838	25.070	1.00	33.87	B	N
ATOM	7210	CA	SER	182	109.835	83.415	24.829	1.00	32.06	B	C
ATOM	7211	CB	SER	182	108.752	82.622	25.547	1.00	31.33	B	C
ATOM	7212	OG	SER	182	107.505	82.817	24.909	1.00	30.50	B	O
ATOM	7213	C	SER	182	109.759	83.117	23.350	1.00	31.89	B	C
ATOM	7214	O	SER	182	109.077	83.812	22.606	1.00	33.14	B	O
ATOM	7215	N	TYR	183	110.463	82.077	22.927	1.00	31.53	B	N
ATOM	7216	CA	TYR	183	110.453	81.677	21.532	1.00	30.47	B	C
ATOM	7217	CB	TYR	183	111.832	81.159	21.118	1.00	30.68	B	C
ATOM	7218	CG	TYR	183	112.962	82.117	21.408	1.00	32.75	B	C
ATOM	7219	CD1	TYR	183	113.490	82.235	22.696	1.00	32.39	B	C
ATOM	7220	CE1	TYR	183	114.517	83.134	22.977	1.00	33.30	B	C
ATOM	7221	CD2	TYR	183	113.492	82.926	20.398	1.00	33.06	B	C
ATOM	7222	CE2	TYR	183	114.520	83.832	20.667	1.00	34.20	B	C
ATOM	7223	CZ	TYR	183	115.028	83.932	21.959	1.00	34.92	B	C
ATOM	7224	OH	TYR	183	116.036	84.832	22.233	1.00	34.60	B	O
ATOM	7225	C	TYR	183	109.423	80.568	21.384	1.00	29.28	B	C
ATOM	7226	O	TYR	183	109.387	79.645	22.196	1.00	29.66	B	O
ATOM	7227	N	ARG	184	108.579	80.659	20.364	1.00	27.67	B	N
ATOM	7228	CA	ARG	184	107.573	79.631	20.148	1.00	26.57	B	C
ATOM	7229	CB	ARG	184	106.327	80.217	19.476	1.00	26.06	B	C
ATOM	7230	CG	ARG	184	105.215	79.191	19.285	1.00	28.64	B	C
ATOM	7231	CD	ARG	184	103.860	79.825	19.004	1.00	30.29	B	C
ATOM	7232	NE	ARG	184	102.827	78.805	18.831	1.00	31.47	B	N
ATOM	7233	CZ	ARG	184	101.526	79.052	18.706	1.00	29.99	B	C
ATOM	7234	NH1	ARG	184	100.678	78.048	18.552	1.00	30.76	B	N
ATOM	7235	NH2	ARG	184	101.068	80.294	18.740	1.00	30.05	B	N
ATOM	7236	C	ARG	184	108.185	78.553	19.272	1.00	26.51	B	C
ATOM	7237	O	ARG	184	108.375	78.754	18.072	1.00	28.42	B	O
ATOM	7238	N	ILE	185	108.493	77.411	19.876	1.00	24.50	B	N
ATOM	7239	CA	ILE	185	109.112	76.303	19.165	1.00	22.88	B	C
ATOM	7240	CB	ILE	185	109.773	75.319	20.159	1.00	23.12	B	C
ATOM	7241	CG2	ILE	185	110.492	74.216	19.405	1.00	22.56	B	C
ATOM	7242	CG1	ILE	185	110.753	76.067	21.064	1.00	22.32	B	C
ATOM	7243	CD1	ILE	185	111.869	76.770	20.324	1.00	21.93	B	C
ATOM	7244	C	ILE	185	108.148	75.516	18.275	1.00	24.00	B	C
ATOM	7245	O	ILE	185	108.569	74.930	17.275	1.00	25.07	B	O
ATOM	7246	N	THR	186	106.866	75.489	18.632	1.00	22.70	B	N
ATOM	7247	CA	THR	186	105.886	74.750	17.840	1.00	23.30	B	C
ATOM	7248	CB	THR	186	105.490	73.440	18.541	1.00	22.83	B	C
ATOM	7249	OG1	THR	186	105.058	73.727	19.877	1.00	27.42	B	O
ATOM	7250	CG2	THR	186	106.665	72.491	18.595	1.00	19.86	B	C
ATOM	7251	C	THR	186	104.620	75.548	17.537	1.00	23.45	B	C

(Continued)

FIG. 4-149

ATOM	7252	O	THR	186	104.266	76.469	18.265	1.00	22.05	B	O
ATOM	7253	N	TRP	187	103.935	75.179	16.457	1.00	24.88	B	N
ATOM	7254	CA	TRP	187	102.717	75.876	16.049	1.00	25.32	B	C
ATOM	7255	CB	TRP	187	103.007	76.767	14.832	1.00	25.43	B	C
ATOM	7256	CG	TRP	187	104.159	77.694	15.025	1.00	25.95	B	C
ATOM	7257	CD2	TRP	187	104.093	79.092	15.321	1.00	26.73	B	C
ATOM	7258	CE2	TRP	187	105.420	79.548	15.487	1.00	26.07	B	C
ATOM	7259	CE3	TRP	187	103.041	80.007	15.464	1.00	27.09	B	C
ATOM	7260	CD1	TRP	187	105.485	77.367	15.019	1.00	26.93	B	C
ATOM	7261	NE1	TRP	187	106.249	78.474	15.298	1.00	26.08	B	N
ATOM	7262	CZ2	TRP	187	105.723	80.878	15.789	1.00	24.50	B	C
ATOM	7263	CZ3	TRP	187	103.346	81.332	15.764	1.00	26.71	B	C
ATOM	7264	CH2	TRP	187	104.679	81.751	15.922	1.00	25.13	B	C
ATOM	7265	C	TRP	187	101.555	74.941	15.709	1.00	26.00	B	C
ATOM	7266	O	TRP	187	100.481	75.402	15.339	1.00	27.74	B	O
ATOM	7267	N	THR	188	101.759	73.636	15.839	1.00	26.58	B	N
ATOM	7268	CA	THR	188	100.708	72.672	15.516	1.00	26.89	B	C
ATOM	7269	CB	THR	188	101.304	71.388	14.895	1.00	26.63	B	C
ATOM	7270	OG1	THR	188	102.291	70.836	15.781	1.00	27.13	B	O
ATOM	7271	CG2	THR	188	101.940	71.697	13.552	1.00	25.34	B	C
ATOM	7272	C	THR	188	99.817	72.259	16.687	1.00	27.17	B	C
ATOM	7273	O	THR	188	98.916	71.437	16.512	1.00	26.92	B	O
ATOM	7274	N	GLY	189	100.064	72.827	17.866	1.00	26.58	B	N
ATOM	7275	CA	GLY	189	99.278	72.491	19.045	1.00	27.32	B	C
ATOM	7276	C	GLY	189	97.783	72.645	18.847	1.00	28.44	B	C
ATOM	7277	O	GLY	189	97.333	73.673	18.345	1.00	30.95	B	O
ATOM	7278	N	LYS	190	97.007	71.636	19.242	1.00	27.83	B	N
ATOM	7279	CA	LYS	190	95.554	71.686	19.085	1.00	27.15	B	C
ATOM	7280	CB	LYS	190	95.187	71.381	17.628	1.00	29.55	B	C
ATOM	7281	CG	LYS	190	93.695	71.294	17.317	1.00	31.55	B	C
ATOM	7282	CD	LYS	190	93.498	71.031	15.821	1.00	36.65	B	C
ATOM	7283	CE	LYS	190	92.043	70.731	15.458	1.00	39.17	B	C
ATOM	7284	NZ	LYS	190	91.127	71.870	15.744	1.00	41.50	B	N
ATOM	7285	C	LYS	190	94.815	70.731	20.028	1.00	26.61	B	C
ATOM	7286	O	LYS	190	94.738	69.523	19.786	1.00	25.87	B	O
ATOM	7287	N	GLU	191	94.262	71.299	21.096	1.00	25.05	B	N
ATOM	7288	CA	GLU	191	93.516	70.558	22.110	1.00	25.10	B	C
ATOM	7289	CB	GLU	191	92.461	71.475	22.728	1.00	26.71	B	C
ATOM	7290	CG	GLU	191	91.821	70.933	23.987	1.00	29.36	B	C
ATOM	7291	CD	GLU	191	90.752	71.859	24.514	1.00	34.15	B	C
ATOM	7292	OE1	GLU	191	90.111	71.522	25.536	1.00	36.46	B	O
ATOM	7293	OE2	GLU	191	90.551	72.932	23.899	1.00	35.96	B	O
ATOM	7294	C	GLU	191	92.849	69.263	21.631	1.00	23.31	B	C
ATOM	7295	O	GLU	191	92.031	69.280	20.713	1.00	20.17	B	O
ATOM	7296	N	ASP	192	93.208	68.157	22.287	1.00	23.70	B	N
ATOM	7297	CA	ASP	192	92.707	66.811	21.996	1.00	24.98	B	C
ATOM	7298	CB	ASP	192	91.183	66.733	22.149	1.00	27.27	B	C
ATOM	7299	CG	ASP	192	90.700	67.200	23.508	1.00	30.85	B	C
ATOM	7300	OD1	ASP	192	91.335	66.855	24.533	1.00	32.45	B	O

FIG. 4-150 (Continued)

ATOM	7301	OD2	ASP	192	89.671	67.908	23.548	1.00	32.44	B O
ATOM	7302	C	ASP	192	93.072	66.329	20.602	1.00	25.95	B C
ATOM	7303	O	ASP	192	92.431	65.426	20.065	1.00	27.81	B O
ATOM	7304	N	ILE	193	94.091	66.926	20.000	1.00	25.46	B N
ATOM	7305	CA	ILE	193	94.485	66.512	18.665	1.00	25.50	B C
ATOM	7306	CB	ILE	193	93.970	67.502	17.595	1.00	26.97	B C
ATOM	7307	CG2	ILE	193	94.426	67.057	16.212	1.00	26.11	B C
ATOM	7308	CG1	ILE	193	92.441	67.552	17.621	1.00	27.90	B C
ATOM	7309	CD1	ILE	193	91.784	66.246	17.210	1.00	29.23	B C
ATOM	7310	C	ILE	193	95.994	66.390	18.546	1.00	25.04	B C
ATOM	7311	O	ILE	193	96.519	65.297	18.334	1.00	26.34	B O
ATOM	7312	N	ILE	194	96.691	67.510	18.682	1.00	22.43	B N
ATOM	7313	CA	ILE	194	98.139	67.505	18.589	1.00	21.47	B C
ATOM	7314	CB	ILE	194	98.618	68.429	17.456	1.00	21.58	B C
ATOM	7315	CG2	ILE	194	100.146	68.414	17.377	1.00	18.60	B C
ATOM	7316	CG1	ILE	194	97.972	68.001	16.133	1.00	19.45	B C
ATOM	7317	CD1	ILE	194	98.331	66.613	15.678	1.00	15.81	B C
ATOM	7318	C	ILE	194	98.779	67.968	19.895	1.00	21.61	B C
ATOM	7319	O	ILE	194	98.544	69.095	20.337	1.00	22.13	B O
ATOM	7320	N	TYR	195	99.580	67.095	20.508	1.00	19.09	B N
ATOM	7321	CA	TYR	195	100.272	67.429	21.750	1.00	18.17	B C
ATOM	7322	CB	TYR	195	100.079	66.331	22.798	1.00	20.45	B C
ATOM	7323	CG	TYR	195	98.647	65.941	23.094	1.00	21.37	B C
ATOM	7324	CD1	TYR	195	97.873	65.269	22.146	1.00	20.38	B C
ATOM	7325	CE1	TYR	195	96.584	64.846	22.445	1.00	20.38	B C
ATOM	7326	CD2	TYR	195	98.087	66.187	24.349	1.00	21.55	B C
ATOM	7327	CE2	TYR	195	96.797	65.768	24.659	1.00	20.75	B C
ATOM	7328	CZ	TYR	195	96.052	65.094	23.705	1.00	20.48	B C
ATOM	7329	OH	TYR	195	94.785	64.650	24.020	1.00	19.77	B O
ATOM	7330	C	TYR	195	101.771	67.579	21.503	1.00	18.27	B C
ATOM	7331	O	TYR	195	102.412	66.677	20.967	1.00	19.50	B O
ATOM	7332	N	ASN	196	102.334	68.710	21.897	1.00	17.52	B N
ATOM	7333	CA	ASN	196	103.762	68.941	21.725	1.00	17.79	B C
ATOM	7334	CB	ASN	196	104.011	70.187	20.867	1.00	17.21	B C
ATOM	7335	CG	ASN	196	103.366	70.106	19.489	1.00	17.04	B C
ATOM	7336	OD1	ASN	196	103.769	69.311	18.632	1.00	16.41	B O
ATOM	7337	ND2	ASN	196	102.362	70.943	19.267	1.00	17.01	B N
ATOM	7338	C	ASN	196	104.380	69.160	23.104	1.00	18.89	B C
ATOM	7339	O	ASN	196	103.976	70.066	23.828	1.00	21.80	B O
ATOM	7340	N	GLY	197	105.355	68.344	23.479	1.00	18.21	B N
ATOM	7341	CA	GLY	197	105.976	68.533	24.778	1.00	18.42	B C
ATOM	7342	C	GLY	197	105.185	67.948	25.941	1.00	18.43	B C
ATOM	7343	O	GLY	197	105.660	67.954	27.088	1.00	17.86	B O
ATOM	7344	N	ILE	198	103.976	67.469	25.654	1.00	15.16	B N
ATOM	7345	CA	ILE	198	103.129	66.842	26.667	1.00	14.58	B C
ATOM	7346	CB	ILE	198	101.956	67.740	27.160	1.00	12.66	B C
ATOM	7347	CG2	ILE	198	102.477	68.784	28.109	1.00	10.73	B C
ATOM	7348	CG1	ILE	198	101.189	68.334	25.970	1.00	14.13	B C
ATOM	7349	CD1	ILE	198	99.936	69.129	26.368	1.00	13.46	B C

(Continued)

FIG. 4-151

ATOM	7350	C	ILE	198	102.523	65.585	26.101	1.00	14.46	B	C
ATOM	7351	O	ILE	198	102.354	65.447	24.895	1.00	16.78	B	O
ATOM	7352	N	THR	199	102.182	64.671	26.990	1.00	15.77	B	N
ATOM	7353	CA	THR	199	101.600	63.396	26.608	1.00	15.94	B	C
ATOM	7354	CB	THR	199	101.982	62.350	27.630	1.00	15.69	B	C
ATOM	7355	OG1	THR	199	101.683	62.861	28.937	1.00	12.99	B	O
ATOM	7356	CG2	THR	199	103.473	62.043	27.534	1.00	15.54	B	C
ATOM	7357	C	THR	199	100.085	63.448	26.522	1.00	15.87	B	C
ATOM	7358	O	THR	199	99.452	64.311	27.133	1.00	16.77	B	O
ATOM	7359	N	ASP	200	99.510	62.534	25.745	1.00	16.29	B	N
ATOM	7360	CA	ASP	200	98.058	62.450	25.619	1.00	16.42	B	C
ATOM	7361	CB	ASP	200	97.654	61.812	24.279	1.00	17.56	B	C
ATOM	7362	CG	ASP	200	97.960	60.321	24.207	1.00	19.40	B	C
ATOM	7363	OD1	ASP	200	98.894	59.847	24.892	1.00	20.07	B	O
ATOM	7364	OD2	ASP	200	97.267	59.624	23.438	1.00	19.79	B	O
ATOM	7365	C	ASP	200	97.657	61.578	26.806	1.00	15.56	B	C
ATOM	7366	O	ASP	200	98.502	61.278	27.648	1.00	16.67	B	O
ATOM	7367	N	TRP	201	96.404	61.151	26.889	1.00	14.09	B	N
ATOM	7368	CA	TRP	201	96.003	60.368	28.049	1.00	13.08	B	C
ATOM	7369	CB	TRP	201	94.503	60.106	28.037	1.00	13.25	B	C
ATOM	7370	CG	TRP	201	94.023	59.554	29.348	1.00	12.63	B	C
ATOM	7371	CD2	TRP	201	94.135	58.198	29.801	1.00	10.35	B	C
ATOM	7372	CE2	TRP	201	93.610	58.150	31.110	1.00	11.08	B	C
ATOM	7373	CE3	TRP	201	94.634	57.020	29.228	1.00	8.52	B	C
ATOM	7374	CD1	TRP	201	93.449	60.253	30.370	1.00	12.43	B	C
ATOM	7375	NE1	TRP	201	93.198	59.416	31.434	1.00	12.21	B	N
ATOM	7376	CZ2	TRP	201	93.567	56.967	31.858	1.00	11.85	B	C
ATOM	7377	CZ3	TRP	201	94.596	55.847	29.968	1.00	8.91	B	C
ATOM	7378	CH2	TRP	201	94.065	55.829	31.271	1.00	10.19	B	C
ATOM	7379	C	TRP	201	96.719	59.040	28.264	1.00	14.63	B	C
ATOM	7380	O	TRP	201	97.197	58.766	29.366	1.00	14.84	B	O
ATOM	7381	N	VAL	202	96.795	58.213	27.224	1.00	14.84	B	N
ATOM	7382	CA	VAL	202	97.413	56.902	27.369	1.00	13.74	B	C
ATOM	7383	CB	VAL	202	97.028	55.966	26.190	1.00	11.30	B	C
ATOM	7384	CG1	VAL	202	97.960	56.155	25.010	1.00	8.57	B	C
ATOM	7385	CG2	VAL	202	97.028	54.541	26.667	1.00	8.82	B	C
ATOM	7386	C	VAL	202	98.929	56.920	27.556	1.00	15.45	B	C
ATOM	7387	O	VAL	202	99.471	56.095	28.292	1.00	16.05	B	O
ATOM	7388	N	TYR	203	99.616	57.857	26.906	1.00	15.45	B	N
ATOM	7389	CA	TYR	203	101.060	57.941	27.053	1.00	13.39	B	C
ATOM	7390	CB	TYR	203	101.656	58.918	26.035	1.00	12.37	B	C
ATOM	7391	CG	TYR	203	102.248	58.238	24.823	1.00	8.90	B	C
ATOM	7392	CD1	TYR	203	101.461	57.938	23.709	1.00	8.82	B	C
ATOM	7393	CE1	TYR	203	101.989	57.260	22.619	1.00	7.48	B	C
ATOM	7394	CD2	TYR	203	103.587	57.844	24.812	1.00	5.53	B	C
ATOM	7395	CE2	TYR	203	104.128	57.167	23.727	1.00	6.51	B	C
ATOM	7396	CZ	TYR	203	103.325	56.874	22.634	1.00	8.49	B	C
ATOM	7397	OH	TYR	203	103.849	56.175	21.572	1.00	8.01	B	O
ATOM	7398	C	TYR	203	101.438	58.371	28.471	1.00	13.68	B	C

(Continued)

FIG. 4-152

ATOM	7399	O	TYR	203	102.369	57.832	29.056	1.00	12.65	B O
ATOM	7400	N	GLU	204	100.706	59.335	29.020	1.00	15.26	B N
ATOM	7401	CA	GLU	204	100.963	59.827	30.376	1.00	16.69	B C
ATOM	7402	CB	GLU	204	99.975	60.936	30.743	1.00	16.67	B C
ATOM	7403	CG	GLU	204	100.174	61.457	32.161	1.00	17.47	B C
ATOM	7404	CD	GLU	204	98.950	62.154	32.731	1.00	17.71	B C
ATOM	7405	OE1	GLU	204	98.197	62.785	31.964	1.00	19.00	B O
ATOM	7406	OE2	GLU	204	98.753	62.085	33.962	1.00	18.59	B O
ATOM	7407	C	GLU	204	100.831	58.740	31.437	1.00	17.37	B C
ATOM	7408	O	GLU	204	101.681	58.597	32.305	1.00	18.22	B O
ATOM	7409	N	GLU	205	99.745	57.980	31.353	1.00	18.89	B N
ATOM	7410	CA	GLU	205	99.442	56.932	32.315	1.00	19.55	B C
ATOM	7411	CB	GLU	205	97.925	56.727	32.344	1.00	20.80	B C
ATOM	7412	CG	GLU	205	97.453	55.436	32.995	1.00	23.74	B C
ATOM	7413	CD	GLU	205	97.414	55.494	34.515	1.00	26.68	B C
ATOM	7414	OE1	GLU	205	97.038	54.466	35.118	1.00	28.71	B O
ATOM	7415	OE2	GLU	205	97.744	56.547	35.106	1.00	26.12	B O
ATOM	7416	C	GLU	205	100.132	55.578	32.131	1.00	19.27	B C
ATOM	7417	O	GLU	205	100.525	54.957	33.107	1.00	19.31	B O
ATOM	7418	N	GLU	206	100.291	55.124	30.893	1.00	18.93	B N
ATOM	7419	CA	GLU	206	100.876	53.808	30.660	1.00	18.63	B C
ATOM	7420	CB	GLU	206	99.989	53.016	29.705	1.00	18.05	B C
ATOM	7421	CG	GLU	206	98.535	52.921	30.139	1.00	20.39	B C
ATOM	7422	CD	GLU	206	98.359	52.143	31.422	1.00	20.74	B C
ATOM	7423	OE1	GLU	206	97.205	51.905	31.821	1.00	21.45	B O
ATOM	7424	OE2	GLU	206	99.375	51.768	32.037	1.00	22.90	B O
ATOM	7425	C	GLU	206	102.293	53.766	30.136	1.00	19.32	B C
ATOM	7426	O	GLU	206	102.976	52.761	30.292	1.00	20.01	B O
ATOM	7427	N	VAL	207	102.744	54.844	29.509	1.00	20.90	B N
ATOM	7428	CA	VAL	207	104.092	54.855	28.968	1.00	20.95	B C
ATOM	7429	CB	VAL	207	104.101	55.347	27.509	1.00	21.52	B C
ATOM	7430	CG1	VAL	207	105.486	55.151	26.918	1.00	22.17	B C
ATOM	7431	CG2	VAL	207	103.048	54.592	26.684	1.00	19.10	B C
ATOM	7432	C	VAL	207	105.080	55.691	29.775	1.00	21.67	B C
ATOM	7433	O	VAL	207	106.052	55.160	30.301	1.00	25.32	B O
ATOM	7434	N	PHE	208	104.833	56.989	29.888	1.00	21.55	B N
ATOM	7435	CA	PHE	208	105.743	57.870	30.611	1.00	21.33	B C
ATOM	7436	CB	PHE	208	105.877	59.201	29.863	1.00	21.28	B C
ATOM	7437	CG	PHE	208	106.571	59.083	28.536	1.00	21.92	B C
ATOM	7438	CD1	PHE	208	107.890	58.649	28.464	1.00	20.63	B C
ATOM	7439	CD2	PHE	208	105.893	59.373	27.353	1.00	22.58	B C
ATOM	7440	CE1	PHE	208	108.525	58.499	27.230	1.00	22.52	B C
ATOM	7441	CE2	PHE	208	106.521	59.225	26.109	1.00	22.24	B C
ATOM	7442	CZ	PHE	208	107.837	58.787	26.048	1.00	22.76	B C
ATOM	7443	C	PHE	208	105.444	58.168	32.082	1.00	21.89	B C
ATOM	7444	O	PHE	208	106.298	58.727	32.768	1.00	23.07	B O
ATOM	7445	N	SER	209	104.261	57.811	32.577	1.00	20.48	B N
ATOM	7446	CA	SER	209	103.922	58.094	33.976	1.00	19.86	B C
ATOM	7447	CB	SER	209	104.689	57.165	34.905	1.00	18.09	B C

(Continued)

FIG. 4-153

ATOM	7448	OG	SER	209	104.383	55.820	34.601	1.00	21.42	B	O
ATOM	7449	C	SER	209	104.285	59.543	34.286	1.00	20.55	B	C
ATOM	7450	O	SER	209	104.780	59.877	35.367	1.00	19.53	B	O
ATOM	7451	N	ALA	210	104.031	60.394	33.302	1.00	20.69	B	N
ATOM	7452	CA	ALA	210	104.319	61.809	33.393	1.00	20.47	B	C
ATOM	7453	CB	ALA	210	105.809	62.044	33.228	1.00	20.63	B	C
ATOM	7454	C	ALA	210	103.545	62.492	32.275	1.00	20.53	B	C
ATOM	7455	O	ALA	210	103.042	61.835	31.367	1.00	19.81	B	O
ATOM	7456	N	TYR	211	103.461	63.813	32.354	1.00	21.78	B	N
ATOM	7457	CA	TYR	211	102.733	64.634	31.390	1.00	20.95	B	C
ATOM	7458	CB	TYR	211	101.944	65.681	32.175	1.00	18.35	B	C
ATOM	7459	CG	TYR	211	100.984	66.566	31.411	1.00	15.38	B	C
ATOM	7460	CD1	TYR	211	100.257	66.086	30.324	1.00	14.13	B	C
ATOM	7461	CE1	TYR	211	99.310	66.879	29.694	1.00	12.47	B	C
ATOM	7462	CD2	TYR	211	100.738	67.863	31.846	1.00	11.95	B	C
ATOM	7463	CE2	TYR	211	99.799	68.657	31.231	1.00	12.21	B	C
ATOM	7464	CZ	TYR	211	99.087	68.165	30.156	1.00	13.68	B	C
ATOM	7465	OH	TYR	211	98.158	68.977	29.550	1.00	12.73	B	O
ATOM	7466	C	TYR	211	103.781	65.283	30.508	1.00	22.11	B	C
ATOM	7467	O	TYR	211	103.512	65.742	29.406	1.00	23.55	B	O
ATOM	7468	N	SER	212	105.000	65.294	31.017	1.00	23.17	B	N
ATOM	7469	CA	SER	212	106.112	65.877	30.310	1.00	22.03	B	C
ATOM	7470	CB	SER	212	107.286	66.055	31.265	1.00	22.38	B	C
ATOM	7471	OG	SER	212	108.441	66.477	30.567	1.00	24.83	B	O
ATOM	7472	C	SER	212	106.547	65.017	29.141	1.00	22.20	B	C
ATOM	7473	O	SER	212	106.651	63.802	29.256	1.00	22.93	B	O
ATOM	7474	N	ALA	213	106.791	65.668	28.013	1.00	22.14	B	N
ATOM	7475	CA	ALA	213	107.267	65.011	26.812	1.00	19.72	B	C
ATOM	7476	CB	ALA	213	106.157	64.882	25.803	1.00	19.85	B	C
ATOM	7477	C	ALA	213	108.360	65.942	26.301	1.00	21.17	B	C
ATOM	7478	O	ALA	213	108.443	66.254	25.109	1.00	20.14	B	O
ATOM	7479	N	LEU	214	109.175	66.409	27.243	1.00	21.21	B	N
ATOM	7480	CA	LEU	214	110.298	67.295	26.961	1.00	22.06	B	C
ATOM	7481	CB	LEU	214	110.049	68.697	27.534	1.00	21.02	B	C
ATOM	7482	CG	LEU	214	108.958	69.546	26.878	1.00	20.19	B	C
ATOM	7483	CD1	LEU	214	108.840	70.872	27.603	1.00	21.72	B	C
ATOM	7484	CD2	LEU	214	109.292	69.779	25.426	1.00	22.01	B	C
ATOM	7485	C	LEU	214	111.528	66.688	27.615	1.00	22.30	B	C
ATOM	7486	O	LEU	214	111.442	66.131	28.703	1.00	25.61	B	O
ATOM	7487	N	TRP	215	112.674	66.795	26.957	1.00	21.71	B	N
ATOM	7488	CA	TRP	215	113.904	66.237	27.497	1.00	19.34	B	C
ATOM	7489	CB	TRP	215	114.112	64.833	26.942	1.00	18.71	B	C
ATOM	7490	CG	TRP	215	113.018	63.863	27.294	1.00	18.43	B	C
ATOM	7491	CD2	TRP	215	111.910	63.481	26.468	1.00	16.56	B	C
ATOM	7492	CE2	TRP	215	111.157	62.536	27.194	1.00	14.85	B	C
ATOM	7493	CE3	TRP	215	111.482	63.845	25.186	1.00	17.01	B	C
ATOM	7494	CD1	TRP	215	112.890	63.155	28.456	1.00	15.04	B	C
ATOM	7495	NE1	TRP	215	111.781	62.356	28.400	1.00	13.49	B	N
ATOM	7496	CZ2	TRP	215	109.996	61.949	26.682	1.00	14.75	B	C

(Continued)

FIG. 4-154

ATOM	7497	CZ3	TRP	215	110.326	63.257	24.675	1.00	15.48	B C
ATOM	7498	CH2	TRP	215	109.599	62.320	25.425	1.00	15.57	B C
ATOM	7499	C	TRP	215	115.110	67.096	27.149	1.00	20.78	B C
ATOM	7500	O	TRP	215	115.625	67.034	26.028	1.00	20.20	B O
ATOM	7501	N	TRP	216	115.566	67.897	28.108	1.00	20.97	B N
ATOM	7502	CA	TRP	216	116.727	68.743	27.880	1.00	21.49	B C
ATOM	7503	CB	TRP	216	116.958	69.705	29.048	1.00	22.15	B C
ATOM	7504	CG	TRP	216	116.020	70.863	29.156	1.00	24.63	B C
ATOM	7505	CD2	TRP	216	116.097	72.099	28.437	1.00	25.56	B C
ATOM	7506	CE2	TRP	216	115.036	72.916	28.896	1.00	26.21	B C
ATOM	7507	CE3	TRP	216	116.959	72.598	27.452	1.00	25.00	B C
ATOM	7508	CD1	TRP	216	114.945	70.974	29.994	1.00	25.92	B C
ATOM	7509	NE1	TRP	216	114.351	72.204	29.844	1.00	26.55	B N
ATOM	7510	CZ2	TRP	216	114.815	74.209	28.401	1.00	24.93	B C
ATOM	7511	CZ3	TRP	216	116.738	73.887	26.958	1.00	25.52	B C
ATOM	7512	CH2	TRP	216	115.673	74.674	27.435	1.00	24.95	B C
ATOM	7513	C	TRP	216	117.982	67.896	27.747	1.00	23.03	B C
ATOM	7514	O	TRP	216	118.083	66.816	28.334	1.00	21.32	B O
ATOM	7515	N	SER	217	118.941	68.398	26.975	1.00	25.91	B N
ATOM	7516	CA	SER	217	120.222	67.723	26.819	1.00	26.96	B C
ATOM	7517	CB	SER	217	120.954	68.223	25.575	1.00	28.77	B C
ATOM	7518	OG	SER	217	121.212	69.612	25.676	1.00	31.27	B O
ATOM	7519	C	SER	217	120.976	68.145	28.080	1.00	27.00	B C
ATOM	7520	O	SER	217	120.694	69.198	28.656	1.00	26.90	B O
ATOM	7521	N	PRO	218	121.942	67.336	28.523	1.00	26.67	B N
ATOM	7522	CD	PRO	218	122.469	66.127	27.867	1.00	26.71	B C
ATOM	7523	CA	PRO	218	122.712	67.646	29.727	1.00	26.69	B C
ATOM	7524	CB	PRO	218	123.961	66.801	29.547	1.00	27.32	B C
ATOM	7525	CG	PRO	218	123.385	65.555	28.937	1.00	26.93	B C
ATOM	7526	C	PRO	218	123.005	69.116	30.010	1.00	27.70	B C
ATOM	7527	O	PRO	218	122.487	69.661	30.985	1.00	30.37	B O
ATOM	7528	N	ASN	219	123.818	69.770	29.184	1.00	27.72	B N
ATOM	7529	CA	ASN	219	124.129	71.176	29.435	1.00	26.82	B C
ATOM	7530	CB	ASN	219	125.485	71.562	28.816	1.00	26.61	B C
ATOM	7531	CG	ASN	219	125.447	71.640	27.308	1.00	27.23	B C
ATOM	7532	OD1	ASN	219	124.376	71.725	26.706	1.00	25.21	B O
ATOM	7533	ND2	ASN	219	126.626	71.632	26.690	1.00	30.87	B N
ATOM	7534	C	ASN	219	123.029	72.133	28.958	1.00	27.38	B C
ATOM	7535	O	ASN	219	123.212	73.351	28.943	1.00	29.12	B O
ATOM	7536	N	GLY	220	121.888	71.575	28.565	1.00	26.98	B N
ATOM	7537	CA	GLY	220	120.765	72.391	28.137	1.00	26.30	B C
ATOM	7538	C	GLY	220	120.823	73.030	26.765	1.00	26.91	B C
ATOM	7539	O	GLY	220	120.097	73.986	26.500	1.00	27.55	B O
ATOM	7540	N	THR	221	121.669	72.512	25.884	1.00	27.00	B N
ATOM	7541	CA	THR	221	121.775	73.073	24.547	1.00	26.99	B C
ATOM	7542	CB	THR	221	123.052	72.584	23.808	1.00	27.74	B C
ATOM	7543	OG1	THR	221	124.213	73.084	24.481	1.00	29.49	B O
ATOM	7544	CG2	THR	221	123.068	73.089	22.367	1.00	26.25	B C
ATOM	7545	C	THR	221	120.559	72.685	23.730	1.00	26.42	B C

(Continued)

FIG. 4-155

ATOM	7546	O	THR	221	119.862	73.551	23.201	1.00	28.29	B	O
ATOM	7547	N	PHE	222	120.305	71.386	23.619	1.00	25.34	B	N
ATOM	7548	CA	PHE	222	119.158	70.921	22.850	1.00	25.13	B	C
ATOM	7549	CB	PHE	222	119.480	69.645	22.069	1.00	25.65	B	C
ATOM	7550	CG	PHE	222	120.722	69.723	21.246	1.00	26.36	B	C
ATOM	7551	CD1	PHE	222	121.955	69.384	21.797	1.00	26.35	B	C
ATOM	7552	CD2	PHE	222	120.661	70.111	19.912	1.00	25.81	B	C
ATOM	7553	CE1	PHE	222	123.115	69.425	21.031	1.00	26.12	B	C
ATOM	7554	CE2	PHE	222	121.815	70.158	19.132	1.00	28.19	B	C
ATOM	7555	CZ	PHE	222	123.046	69.814	19.693	1.00	28.46	B	C
ATOM	7556	C	PHE	222	117.949	70.618	23.723	1.00	24.55	B	C
ATOM	7557	O	PHE	222	118.066	70.282	24.901	1.00	24.38	B	O
ATOM	7558	N	LEU	223	116.780	70.746	23.119	1.00	24.19	B	N
ATOM	7559	CA	LEU	223	115.540	70.442	23.789	1.00	22.85	B	C
ATOM	7560	CB	LEU	223	114.618	71.667	23.878	1.00	21.81	B	C
ATOM	7561	CG	LEU	223	113.248	71.340	24.503	1.00	20.49	B	C
ATOM	7562	CD1	LEU	223	113.469	70.684	25.860	1.00	21.10	B	C
ATOM	7563	CD2	LEU	223	112.389	72.587	24.644	1.00	18.49	B	C
ATOM	7564	C	LEU	223	114.885	69.380	22.934	1.00	23.23	B	C
ATOM	7565	O	LEU	223	114.462	69.650	21.808	1.00	22.62	B	O
ATOM	7566	N	ALA	224	114.834	68.162	23.459	1.00	23.47	B	N
ATOM	7567	CA	ALA	224	114.201	67.062	22.753	1.00	23.08	B	C
ATOM	7568	CB	ALA	224	114.935	65.776	23.038	1.00	24.27	B	C
ATOM	7569	C	ALA	224	112.761	66.968	23.248	1.00	23.38	B	C
ATOM	7570	O	ALA	224	112.498	67.111	24.444	1.00	23.37	B	O
ATOM	7571	N	TYR	225	111.825	66.755	22.328	1.00	23.10	B	N
ATOM	7572	CA	TYR	225	110.423	66.635	22.703	1.00	21.31	B	C
ATOM	7573	CB	TYR	225	109.733	67.997	22.701	1.00	18.23	B	C
ATOM	7574	CG	TYR	225	109.648	68.624	21.332	1.00	18.56	B	C
ATOM	7575	CD1	TYR	225	110.680	69.443	20.849	1.00	16.52	B	C
ATOM	7576	CE1	TYR	225	110.607	70.017	19.589	1.00	13.07	B	C
ATOM	7577	CD2	TYR	225	108.543	68.399	20.509	1.00	16.18	B	C
ATOM	7578	CE2	TYR	225	108.466	68.970	19.244	1.00	14.89	B	C
ATOM	7579	CZ	TYR	225	109.502	69.777	18.796	1.00	12.68	B	C
ATOM	7580	OH	TYR	225	109.431	70.342	17.553	1.00	14.06	B	O
ATOM	7581	C	TYR	225	109.705	65.712	21.737	1.00	21.55	B	C
ATOM	7582	O	TYR	225	110.143	65.523	20.607	1.00	22.86	B	O
ATOM	7583	N	ALA	226	108.596	65.141	22.195	1.00	20.96	B	N
ATOM	7584	CA	ALA	226	107.811	64.235	21.381	1.00	19.66	B	C
ATOM	7585	CB	ALA	226	107.485	62.980	22.173	1.00	19.19	B	C
ATOM	7586	C	ALA	226	106.528	64.921	20.962	1.00	19.73	B	C
ATOM	7587	O	ALA	226	106.107	65.908	21.576	1.00	21.22	B	O
ATOM	7588	N	GLN	227	105.912	64.410	19.909	1.00	16.70	B	N
ATOM	7589	CA	GLN	227	104.659	64.968	19.457	1.00	17.01	B	C
ATOM	7590	CB	GLN	227	104.823	65.709	18.139	1.00	17.47	B	C
ATOM	7591	CG	GLN	227	103.512	66.300	17.670	1.00	18.65	B	C
ATOM	7592	CD	GLN	227	103.554	66.788	16.249	1.00	18.45	B	C
ATOM	7593	OE1	GLN	227	103.724	66.007	15.320	1.00	18.91	B	O
ATOM	7594	NE2	GLN	227	103.394	68.090	16.070	1.00	19.57	B	N

(Continued)

FIG. 4-156

ATOM	7595	C	GLN	227	103.651	63.841	19.274	1.00	17.21	B	C
ATOM	7596	O	GLN	227	103.931	62.850	18.594	1.00	17.76	B	O
ATOM	7597	N	PHE	228	102.483	63.990	19.888	1.00	16.03	B	N
ATOM	7598	CA	PHE	228	101.447	62.980	19.768	1.00	17.64	B	C
ATOM	7599	CB	PHE	228	100.985	62.524	21.158	1.00	14.78	B	C
ATOM	7600	CG	PHE	228	102.111	62.105	22.065	1.00	13.03	B	C
ATOM	7601	CD1	PHE	228	102.659	63.003	22.982	1.00	12.33	B	C
ATOM	7602	CD2	PHE	228	102.653	60.826	21.978	1.00	12.01	B	C
ATOM	7603	CE1	PHE	228	103.732	62.636	23.796	1.00	9.77	B	C
ATOM	7604	CE2	PHE	228	103.725	60.450	22.786	1.00	11.27	B	C
ATOM	7605	CZ	PHE	228	104.267	61.360	23.698	1.00	9.50	B	C
ATOM	7606	C	PHE	228	100.263	63.523	18.955	1.00	18.96	B	C
ATOM	7607	O	PHE	228	99.894	64.697	19.064	1.00	19.98	B	O
ATOM	7608	N	ASN	229	99.685	62.657	18.133	1.00	20.11	B	N
ATOM	7609	CA	ASN	229	98.548	63.002	17.285	1.00	20.74	B	C
ATOM	7610	CB	ASN	229	98.965	62.867	15.819	1.00	22.98	B	C
ATOM	7611	CG	ASN	229	97.980	63.488	14.867	1.00	27.56	B	C
ATOM	7612	OD1	ASN	229	96.795	63.610	15.174	1.00	31.63	B	O
ATOM	7613	ND2	ASN	229	98.467	63.871	13.692	1.00	30.76	B	N
ATOM	7614	C	ASN	229	97.435	61.995	17.609	1.00	21.10	B	C
ATOM	7615	O	ASN	229	97.550	60.816	17.283	1.00	20.02	B	O
ATOM	7616	N	ASP	230	96.369	62.444	18.260	1.00	22.16	B	N
ATOM	7617	CA	ASP	230	95.277	61.534	18.608	1.00	24.31	B	C
ATOM	7618	CB	ASP	230	94.877	61.683	20.079	1.00	23.86	B	C
ATOM	7619	CG	ASP	230	95.999	61.332	21.027	1.00	25.25	B	C
ATOM	7620	OD1	ASP	230	95.701	60.914	22.159	1.00	27.89	B	O
ATOM	7621	OD2	ASP	230	97.180	61.485	20.656	1.00	27.78	B	O
ATOM	7622	C	ASP	230	94.056	61.776	17.740	1.00	24.83	B	C
ATOM	7623	O	ASP	230	92.927	61.496	18.148	1.00	24.00	B	O
ATOM	7624	N	THR	231	94.297	62.284	16.536	1.00	25.37	B	N
ATOM	7625	CA	THR	231	93.229	62.582	15.593	1.00	26.24	B	C
ATOM	7626	CB	THR	231	93.802	62.868	14.193	1.00	25.71	B	C
ATOM	7627	OG1	THR	231	94.439	64.151	14.194	1.00	26.78	B	O
ATOM	7628	CG2	THR	231	92.702	62.851	13.150	1.00	23.72	B	C
ATOM	7629	C	THR	231	92.148	61.510	15.467	1.00	27.04	B	C
ATOM	7630	O	THR	231	90.964	61.815	15.604	1.00	29.05	B	O
ATOM	7631	N	GLU	232	92.545	60.265	15.211	1.00	27.00	B	N
ATOM	7632	CA	GLU	232	91.574	59.183	15.038	1.00	26.30	B	C
ATOM	7633	CB	GLU	232	92.017	58.286	13.877	1.00	29.71	B	C
ATOM	7634	CG	GLU	232	92.177	59.036	12.563	1.00	36.71	B	C
ATOM	7635	CD	GLU	232	92.971	58.253	11.519	1.00	39.94	B	C
ATOM	7636	OE1	GLU	232	92.434	57.273	10.943	1.00	41.61	B	O
ATOM	7637	OE2	GLU	232	94.142	58.623	11.286	1.00	39.28	B	O
ATOM	7638	C	GLU	232	91.320	58.328	16.282	1.00	23.78	B	C
ATOM	7639	O	GLU	232	90.683	57.280	16.208	1.00	23.18	B	O
ATOM	7640	N	VAL	233	91.823	58.763	17.427	1.00	21.91	B	N
ATOM	7641	CA	VAL	233	91.608	58.010	18.652	1.00	20.18	B	C
ATOM	7642	CB	VAL	233	92.651	58.375	19.727	1.00	20.26	B	C
ATOM	7643	CG1	VAL	233	92.352	57.627	21.016	1.00	18.23	B	C

(Continued)

FIG. 4-157

ATOM	7644	CG2	VAL	233	94.050	58.032	19.223	1.00	18.80	B	C
ATOM	7645	C	VAL	233	90.218	58.339	19.175	1.00	18.04	B	C
ATOM	7646	O	VAL	233	89.886	59.507	19.378	1.00	19.49	B	O
ATOM	7647	N	PRO	234	89.383	57.315	19.394	1.00	16.04	B	N
ATOM	7648	CD	PRO	234	89.633	55.876	19.231	1.00	14.37	B	C
ATOM	7649	CA	PRO	234	88.025	57.544	19.896	1.00	15.33	B	C
ATOM	7650	CB	PRO	234	87.461	56.133	20.030	1.00	13.91	B	C
ATOM	7651	CG	PRO	234	88.247	55.363	19.013	1.00	12.89	B	C
ATOM	7652	C	PRO	234	88.048	58.275	21.227	1.00	14.45	B	C
ATOM	7653	O	PRO	234	89.043	58.242	21.950	1.00	13.13	B	O
ATOM	7654	N	LEU	235	86.941	58.927	21.547	1.00	14.92	B	N
ATOM	7655	CA	LEU	235	86.831	59.676	22.791	1.00	13.91	B	C
ATOM	7656	CB	LEU	235	86.131	61.005	22.536	1.00	14.93	B	C
ATOM	7657	CG	LEU	235	86.627	61.937	21.434	1.00	16.83	B	C
ATOM	7658	CD1	LEU	235	85.581	63.030	21.198	1.00	17.90	B	C
ATOM	7659	CD2	LEU	235	87.963	62.534	21.833	1.00	14.85	B	C
ATOM	7660	C	LEU	235	85.998	58.911	23.803	1.00	12.70	B	C
ATOM	7661	O	LEU	235	84.941	58.385	23.456	1.00	13.27	B	O
ATOM	7662	N	ILE	236	86.468	58.801	25.039	1.00	10.71	B	N
ATOM	7663	CA	ILE	236	85.618	58.165	26.037	1.00	10.96	B	C
ATOM	7664	CB	ILE	236	86.385	57.630	27.283	1.00	9.70	B	C
ATOM	7665	CG2	ILE	236	87.316	58.692	27.859	1.00	10.05	B	C
ATOM	7666	CG1	ILE	236	85.386	57.246	28.371	1.00	7.51	B	C
ATOM	7667	CD1	ILE	236	84.465	56.100	28.002	1.00	9.77	B	C
ATOM	7668	C	ILE	236	84.774	59.369	26.456	1.00	12.91	B	C
ATOM	7669	O	ILE	236	85.277	60.500	26.486	1.00	13.64	B	O
ATOM	7670	N	GLU	237	83.497	59.156	26.741	1.00	13.69	B	N
ATOM	7671	CA	GLU	237	82.651	60.267	27.150	1.00	14.30	B	C
ATOM	7672	CB	GLU	237	81.657	60.643	26.041	1.00	15.93	B	C
ATOM	7673	CG	GLU	237	82.307	60.993	24.708	1.00	20.06	B	C
ATOM	7674	CD	GLU	237	81.311	61.541	23.682	1.00	24.67	B	C
ATOM	7675	OE1	GLU	237	80.133	61.125	23.713	1.00	27.11	B	O
ATOM	7676	OE2	GLU	237	81.706	62.377	22.832	1.00	25.71	B	O
ATOM	7677	C	GLU	237	81.902	59.898	28.407	1.00	12.26	B	C
ATOM	7678	O	GLU	237	81.473	58.759	28.569	1.00	12.02	B	O
ATOM	7679	N	TYR	238	81.768	60.860	29.310	1.00	12.67	B	N
ATOM	7680	CA	TYR	238	81.044	60.630	30.550	1.00	13.08	B	C
ATOM	7681	CB	TYR	238	81.903	59.816	31.534	1.00	11.88	B	C
ATOM	7682	CG	TYR	238	83.201	60.458	31.954	1.00	15.20	B	C
ATOM	7683	CD1	TYR	238	83.250	61.347	33.026	1.00	15.46	B	C
ATOM	7684	CE1	TYR	238	84.458	61.920	33.430	1.00	15.78	B	C
ATOM	7685	CD2	TYR	238	84.390	60.160	31.291	1.00	14.07	B	C
ATOM	7686	CE2	TYR	238	85.592	60.727	31.683	1.00	14.24	B	C
ATOM	7687	CZ	TYR	238	85.623	61.606	32.751	1.00	13.94	B	C
ATOM	7688	OH	TYR	238	86.818	62.173	33.129	1.00	12.45	B	O
ATOM	7689	C	TYR	238	80.583	61.944	31.163	1.00	13.53	B	C
ATOM	7690	O	TYR	238	81.095	63.008	30.832	1.00	14.88	B	O
ATOM	7691	N	SER	239	79.592	61.865	32.042	1.00	14.64	B	N
ATOM	7692	CA	SER	239	79.040	63.047	32.684	1.00	13.89	B	C

(Continued)

FIG. 4-158

ATOM	7693	CB	SER	239	77.597	62.783	33.085	1.00	13.29	B C
ATOM	7694	OG	SER	239	76.800	62.496	31.961	1.00	19.37	B O
ATOM	7695	C	SER	239	79.775	63.547	33.915	1.00	14.65	B C
ATOM	7696	O	SER	239	80.361	62.775	34.673	1.00	15.52	B O
ATOM	7697	N	PHE	240	79.737	64.860	34.100	1.00	14.89	B N
ATOM	7698	CA	PHE	240	80.313	65.493	35.276	1.00	15.60	B C
ATOM	7699	CB	PHE	240	81.543	66.325	34.932	1.00	17.00	B C
ATOM	7700	CG	PHE	240	82.422	66.591	36.112	1.00	14.96	B C
ATOM	7701	CD1	PHE	240	83.325	65.629	36.547	1.00	15.66	B C
ATOM	7702	CD2	PHE	240	82.312	67.781	36.822	1.00	14.41	B C
ATOM	7703	CE1	PHE	240	84.108	65.846	37.675	1.00	13.32	B C
ATOM	7704	CE2	PHE	240	83.087	68.009	37.950	1.00	12.45	B C
ATOM	7705	CZ	PHE	240	83.988	67.039	38.379	1.00	11.23	B C
ATOM	7706	C	PHE	240	79.184	66.403	35.758	1.00	15.75	B C
ATOM	7707	O	PHE	240	78.671	67.232	34.995	1.00	14.05	B O
ATOM	7708	N	TYR	241	78.785	66.231	37.013	1.00	15.13	B N
ATOM	7709	CA	TYR	241	77.683	67.002	37.567	1.00	14.92	B C
ATOM	7710	CB	TYR	241	76.912	66.125	38.545	1.00	13.15	B C
ATOM	7711	CG	TYR	241	76.480	64.848	37.880	1.00	12.77	B C
ATOM	7712	CD1	TYR	241	75.393	64.832	37.007	1.00	11.36	B C
ATOM	7713	CE1	TYR	241	75.051	63.678	36.304	1.00	12.47	B C
ATOM	7714	CD2	TYR	241	77.215	63.674	38.041	1.00	12.85	B C
ATOM	7715	CE2	TYR	241	76.883	62.512	37.342	1.00	12.55	B C
ATOM	7716	CZ	TYR	241	75.801	62.523	36.472	1.00	12.41	B C
ATOM	7717	OH	TYR	241	75.489	61.395	35.748	1.00	12.90	B O
ATOM	7718	C	TYR	241	78.100	68.299	38.208	1.00	15.24	B C
ATOM	7719	O	TYR	241	77.311	69.239	38.263	1.00	17.04	B O
ATOM	7720	N	SER	242	79.337	68.353	38.694	1.00	16.92	B N
ATOM	7721	CA	SER	242	79.864	69.570	39.305	1.00	16.89	B C
ATOM	7722	CB	SER	242	79.816	70.707	38.280	1.00	15.48	B C
ATOM	7723	OG	SER	242	80.439	71.870	38.782	1.00	18.12	B O
ATOM	7724	C	SER	242	79.078	69.963	40.548	1.00	16.70	B C
ATOM	7725	O	SER	242	78.438	69.121	41.171	1.00	18.07	B O
ATOM	7726	N	ASP	243	79.136	71.241	40.912	1.00	17.57	B N
ATOM	7727	CA	ASP	243	78.405	71.728	42.075	1.00	19.72	B C
ATOM	7728	CB	ASP	243	78.846	73.142	42.442	1.00	23.43	B C
ATOM	7729	CG	ASP	243	80.275	73.188	42.950	1.00	28.70	B C
ATOM	7730	OD1	ASP	243	80.646	72.307	43.765	1.00	29.62	B O
ATOM	7731	OD2	ASP	243	81.021	74.106	42.542	1.00	29.69	B O
ATOM	7732	C	ASP	243	76.917	71.708	41.772	1.00	20.24	B C
ATOM	7733	O	ASP	243	76.508	71.777	40.609	1.00	20.38	B O
ATOM	7734	N	GLU	244	76.104	71.624	42.818	1.00	19.25	B N
ATOM	7735	CA	GLU	244	74.668	71.545	42.630	1.00	19.29	B C
ATOM	7736	CB	GLU	244	73.966	71.376	43.988	1.00	19.46	B C
ATOM	7737	CG	GLU	244	73.283	72.609	44.533	1.00	23.65	B C
ATOM	7738	CD	GLU	244	72.567	72.334	45.847	1.00	26.30	B C
ATOM	7739	OE1	GLU	244	73.225	71.856	46.797	1.00	28.64	B O
ATOM	7740	OE2	GLU	244	71.349	72.595	45.934	1.00	27.72	B O
ATOM	7741	C	GLU	244	74.086	72.720	41.850	1.00	18.30	B C

(Continued)

FIG. 4-159

ATOM	7742	O	GLU	244	72.958	72.647	41.355	1.00	19.81	B	O
ATOM	7743	N	SER	245	74.861	73.785	41.702	1.00	15.52	B	N
ATOM	7744	CA	SER	245	74.381	74.958	40.986	1.00	11.95	B	C
ATOM	7745	CB	SER	245	75.157	76.196	41.425	1.00	11.90	B	C
ATOM	7746	OG	SER	245	76.473	76.162	40.915	1.00	17.74	B	O
ATOM	7747	C	SER	245	74.459	74.821	39.470	1.00	9.32	B	C
ATOM	7748	O	SER	245	73.883	75.625	38.752	1.00	10.56	B	O
ATOM	7749	N	LEU	246	75.167	73.819	38.968	1.00	8.50	B	N
ATOM	7750	CA	LEU	246	75.252	73.647	37.518	1.00	8.56	B	C
ATOM	7751	CB	LEU	246	76.481	72.812	37.145	1.00	8.57	B	C
ATOM	7752	CG	LEU	246	76.770	72.639	35.644	1.00	11.81	B	C
ATOM	7753	CD1	LEU	246	77.074	73.984	35.008	1.00	5.99	B	C
ATOM	7754	CD2	LEU	246	77.949	71.694	35.449	1.00	10.70	B	C
ATOM	7755	C	LEU	246	73.971	72.944	37.070	1.00	10.18	B	C
ATOM	7756	O	LEU	246	73.772	71.758	37.349	1.00	9.30	B	O
ATOM	7757	N	GLN	247	73.094	73.685	36.393	1.00	12.01	B	N
ATOM	7758	CA	GLN	247	71.815	73.144	35.938	1.00	12.00	B	C
ATOM	7759	CB	GLN	247	70.995	74.230	35.245	1.00	12.36	B	C
ATOM	7760	CG	GLN	247	69.584	73.806	34.884	1.00	14.88	B	C
ATOM	7761	CD	GLN	247	68.727	74.978	34.446	1.00	16.57	B	C
ATOM	7762	OE1	GLN	247	69.152	75.790	33.627	1.00	18.02	B	O
ATOM	7763	NE2	GLN	247	67.512	75.069	34.986	1.00	13.91	B	N
ATOM	7764	C	GLN	247	71.974	71.942	35.022	1.00	12.63	B	C
ATOM	7765	O	GLN	247	71.358	70.903	35.249	1.00	13.50	B	O
ATOM	7766	N	TYR	248	72.793	72.074	33.987	1.00	13.12	B	N
ATOM	7767	CA	TYR	248	73.022	70.949	33.089	1.00	13.90	B	C
ATOM	7768	CB	TYR	248	72.954	71.379	31.628	1.00	11.81	B	C
ATOM	7769	CG	TYR	248	71.562	71.727	31.155	1.00	11.76	B	C
ATOM	7770	CD1	TYR	248	70.967	72.942	31.498	1.00	10.54	B	C
ATOM	7771	CE1	TYR	248	69.689	73.265	31.055	1.00	11.01	B	C
ATOM	7772	CD2	TYR	248	70.842	70.843	30.360	1.00	9.97	B	C
ATOM	7773	CE2	TYR	248	69.562	71.155	29.911	1.00	11.67	B	C
ATOM	7774	CZ	TYR	248	68.989	72.366	30.259	1.00	11.89	B	C
ATOM	7775	OH	TYR	248	67.722	72.674	29.801	1.00	10.14	B	O
ATOM	7776	C	TYR	248	74.385	70.340	33.353	1.00	14.77	B	C
ATOM	7777	O	TYR	248	75.384	71.049	33.419	1.00	15.30	B	O
ATOM	7778	N	PRO	249	74.441	69.014	33.544	1.00	15.88	B	N
ATOM	7779	CD	PRO	249	73.350	68.031	33.636	1.00	15.23	B	C
ATOM	7780	CA	PRO	249	75.739	68.381	33.793	1.00	16.47	B	C
ATOM	7781	CB	PRO	249	75.360	66.947	34.161	1.00	16.57	B	C
ATOM	7782	CG	PRO	249	74.086	66.732	33.417	1.00	15.37	B	C
ATOM	7783	C	PRO	249	76.568	68.468	32.515	1.00	16.66	B	C
ATOM	7784	O	PRO	249	76.016	68.446	31.419	1.00	15.91	B	O
ATOM	7785	N	LYS	250	77.884	68.586	32.647	1.00	16.70	B	N
ATOM	7786	CA	LYS	250	78.721	68.683	31.463	1.00	18.05	B	C
ATOM	7787	CB	LYS	250	79.920	69.591	31.719	1.00	17.36	B	C
ATOM	7788	CG	LYS	250	80.912	69.015	32.681	1.00	22.33	B	C
ATOM	7789	CD	LYS	250	82.204	69.826	32.691	1.00	28.25	B	C
ATOM	7790	CE	LYS	250	82.952	69.757	31.355	1.00	26.52	B	C

(Continued)

FIG. 4-160

ATOM	7791	NZ	LYS	250	84.262	70.465	31.442	1.00	26.19	B N
ATOM	7792	C	LYS	250	79.215	67.313	31.040	1.00	17.64	B C
ATOM	7793	O	LYS	250	79.348	66.409	31.867	1.00	20.20	B O
ATOM	7794	N	THR	251	79.478	67.160	29.750	1.00	15.06	B N
ATOM	7795	CA	THR	251	79.978	65.905	29.234	1.00	14.91	B C
ATOM	7796	CB	THR	251	79.317	65.537	27.896	1.00	13.86	B C
ATOM	7797	OG1	THR	251	77.965	65.144	28.128	1.00	14.97	B O
ATOM	7798	CG2	THR	251	80.058	64.389	27.227	1.00	13.23	B C
ATOM	7799	C	THR	251	81.473	66.016	29.015	1.00	15.66	B C
ATOM	7800	O	THR	251	81.934	66.831	28.227	1.00	18.88	B O
ATOM	7801	N	VAL	252	82.231	65.194	29.720	1.00	15.28	B N
ATOM	7802	CA	VAL	252	83.675	65.195	29.578	1.00	15.13	B C
ATOM	7803	CB	VAL	252	84.335	64.717	30.882	1.00	13.64	B C
ATOM	7804	CG1	VAL	252	85.827	64.580	30.706	1.00	10.22	B C
ATOM	7805	CG2	VAL	252	84.012	65.701	31.991	1.00	11.83	B C
ATOM	7806	C	VAL	252	84.027	64.264	28.422	1.00	17.21	B C
ATOM	7807	O	VAL	252	83.472	63.173	28.304	1.00	17.34	B O
ATOM	7808	N	ARG	253	84.929	64.710	27.557	1.00	18.91	B N
ATOM	7809	CA	ARG	253	85.349	63.922	26.403	1.00	20.46	B C
ATOM	7810	CB	ARG	253	84.822	64.560	25.113	1.00	22.21	B C
ATOM	7811	CG	ARG	253	83.399	64.137	24.755	1.00	26.72	B C
ATOM	7812	CD	ARG	253	82.847	64.920	23.578	1.00	28.87	B C
ATOM	7813	NE	ARG	253	82.176	66.132	24.033	1.00	36.20	B N
ATOM	7814	CZ	ARG	253	80.870	66.221	24.278	1.00	38.47	B C
ATOM	7815	NH1	ARG	253	80.084	65.164	24.099	1.00	39.84	B N
ATOM	7816	NH2	ARG	253	80.352	67.360	24.727	1.00	37.97	B N
ATOM	7817	C	ARG	253	86.863	63.863	26.389	1.00	19.71	B C
ATOM	7818	O	ARG	253	87.520	64.886	26.246	1.00	21.87	B O
ATOM	7819	N	VAL	254	87.404	62.656	26.538	1.00	18.34	B N
ATOM	7820	CA	VAL	254	88.847	62.434	26.594	1.00	15.15	B C
ATOM	7821	CB	VAL	254	89.257	61.924	27.994	1.00	16.16	B C
ATOM	7822	CG1	VAL	254	90.771	61.759	28.081	1.00	15.18	B C
ATOM	7823	CG2	VAL	254	88.736	62.868	29.065	1.00	16.46	B C
ATOM	7824	C	VAL	254	89.313	61.397	25.585	1.00	14.67	B C
ATOM	7825	O	VAL	254	88.806	60.272	25.566	1.00	14.87	B O
ATOM	7826	N	PRO	255	90.281	61.757	24.726	1.00	13.62	B N
ATOM	7827	CD	PRO	255	90.872	63.081	24.472	1.00	12.90	B C
ATOM	7828	CA	PRO	255	90.760	60.777	23.746	1.00	12.62	B C
ATOM	7829	CB	PRO	255	91.786	61.566	22.933	1.00	11.40	B C
ATOM	7830	CG	PRO	255	91.263	62.969	23.013	1.00	11.65	B C
ATOM	7831	C	PRO	255	91.379	59.645	24.553	1.00	12.46	B C
ATOM	7832	O	PRO	255	92.355	59.831	25.282	1.00	13.25	B O
ATOM	7833	N	TYR	256	90.796	58.469	24.414	1.00	12.53	B N
ATOM	7834	CA	TYR	256	91.217	57.306	25.161	1.00	12.05	B C
ATOM	7835	CB	TYR	256	90.319	57.205	26.398	1.00	12.42	B C
ATOM	7836	CG	TYR	256	90.608	56.082	27.360	1.00	14.53	B C
ATOM	7837	CD1	TYR	256	91.021	56.355	28.662	1.00	16.44	B C
ATOM	7838	CE1	TYR	256	91.192	55.337	29.596	1.00	17.38	B C
ATOM	7839	CD2	TYR	256	90.382	54.752	27.010	1.00	15.31	B C

(Continued)

FIG. 4-161

ATOM	7840	CE2	TYR	256	90.548	53.724	27.941	1.00	16.91	B	C
ATOM	7841	CZ	TYR	256	90.949	54.030	29.232	1.00	16.54	B	C
ATOM	7842	OH	TYR	256	91.068	53.042	30.176	1.00	17.03	B	O
ATOM	7843	C	TYR	256	91.040	56.094	24.263	1.00	11.63	B	C
ATOM	7844	O	TYR	256	89.923	55.765	23.870	1.00	13.76	B	O
ATOM	7845	N	PRO	257	92.141	55.415	23.924	1.00	10.78	B	N
ATOM	7846	CD	PRO	257	93.535	55.786	24.231	1.00	9.21	B	C
ATOM	7847	CA	PRO	257	92.098	54.229	23.068	1.00	9.97	B	C
ATOM	7848	CB	PRO	257	93.473	54.233	22.438	1.00	8.95	B	C
ATOM	7849	CG	PRO	257	94.326	54.657	23.606	1.00	8.91	B	C
ATOM	7850	C	PRO	257	91.859	52.949	23.869	1.00	11.12	B	C
ATOM	7851	O	PRO	257	92.694	52.556	24.681	1.00	9.90	B	O
ATOM	7852	N	LYS	258	90.723	52.300	23.648	1.00	11.97	B	N
ATOM	7853	CA	LYS	258	90.444	51.057	24.353	1.00	13.52	B	C
ATOM	7854	CB	LYS	258	88.930	50.855	24.492	1.00	15.66	B	C
ATOM	7855	CG	LYS	258	88.305	51.808	25.522	1.00	14.41	B	C
ATOM	7856	CD	LYS	258	86.801	51.730	25.552	1.00	18.08	B	C
ATOM	7857	CE	LYS	258	86.204	52.655	26.627	1.00	19.12	B	C
ATOM	7858	NZ	LYS	258	86.355	52.156	28.030	1.00	14.62	B	N
ATOM	7859	C	LYS	258	91.101	49.934	23.571	1.00	14.64	B	C
ATOM	7860	O	LYS	258	91.522	50.139	22.437	1.00	16.07	B	O
ATOM	7861	N	ALA	259	91.227	48.760	24.178	1.00	16.22	B	N
ATOM	7862	CA	ALA	259	91.874	47.627	23.515	1.00	14.83	B	C
ATOM	7863	CB	ALA	259	91.564	46.356	24.261	1.00	14.32	B	C
ATOM	7864	C	ALA	259	91.476	47.476	22.045	1.00	16.09	B	C
ATOM	7865	O	ALA	259	90.293	47.415	21.710	1.00	15.64	B	O
ATOM	7866	N	GLY	260	92.477	47.428	21.172	1.00	15.95	B	N
ATOM	7867	CA	GLY	260	92.221	47.269	19.754	1.00	15.99	B	C
ATOM	7868	C	GLY	260	91.841	48.523	18.982	1.00	17.08	B	C
ATOM	7869	O	GLY	260	91.781	48.488	17.752	1.00	18.87	B	O
ATOM	7870	N	ALA	261	91.587	49.629	19.673	1.00	14.62	B	N
ATOM	7871	CA	ALA	261	91.198	50.851	18.983	1.00	14.89	B	C
ATOM	7872	CB	ALA	261	90.557	51.830	19.963	1.00	13.58	B	C
ATOM	7873	C	ALA	261	92.379	51.509	18.292	1.00	17.12	B	C
ATOM	7874	O	ALA	261	93.489	50.986	18.298	1.00	20.05	B	O
ATOM	7875	N	VAL	262	92.135	52.662	17.686	1.00	17.34	B	N
ATOM	7876	CA	VAL	262	93.192	53.384	17.004	1.00	16.00	B	C
ATOM	7877	CB	VAL	262	92.614	54.371	15.947	1.00	14.51	B	C
ATOM	7878	CG1	VAL	262	93.717	55.252	15.383	1.00	13.59	B	C
ATOM	7879	CG2	VAL	262	91.970	53.596	14.820	1.00	10.82	B	C
ATOM	7880	C	VAL	262	93.984	54.150	18.055	1.00	17.31	B	C
ATOM	7881	O	VAL	262	93.432	54.973	18.786	1.00	20.51	B	O
ATOM	7882	N	ASN	263	95.275	53.856	18.128	1.00	16.87	B	N
ATOM	7883	CA	ASN	263	96.190	54.493	19.068	1.00	17.45	B	C
ATOM	7884	CB	ASN	263	97.406	53.595	19.292	1.00	17.58	B	C
ATOM	7885	CG	ASN	263	97.230	52.629	20.437	1.00	20.08	B	C
ATOM	7886	OD1	ASN	263	97.919	51.606	20.500	1.00	19.88	B	O
ATOM	7887	ND2	ASN	263	96.329	52.950	21.365	1.00	18.44	B	N
ATOM	7888	C	ASN	263	96.706	55.827	18.533	1.00	18.01	B	C

(Continued)

FIG. 4-162

ATOM	7889	O	ASN	263	96.578	56.134	17.345	1.00 19.39	B	O
ATOM	7890	N	PRO	264	97.288	56.646	19.413	1.00 17.06	B	N
ATOM	7891	CD	PRO	264	97.357	56.546	20.883	1.00 15.68	B	C
ATOM	7892	CA	PRO	264	97.819	57.926	18.950	1.00 15.10	B	C
ATOM	7893	CB	PRO	264	98.089	58.676	20.251	1.00 14.78	B	C
ATOM	7894	CG	PRO	264	98.411	57.569	21.214	1.00 14.94	B	C
ATOM	7895	C	PRO	264	99.105	57.605	18.198	1.00 15.50	B	C
ATOM	7896	O	PRO	264	99.669	56.527	18.369	1.00 15.27	B	O
ATOM	7897	N	THR	265	99.560	58.521	17.354	1.00 16.21	B	N
ATOM	7898	CA	THR	265	100.796	58.305	16.617	1.00 15.30	B	C
ATOM	7899	CB	THR	265	100.647	58.677	15.132	1.00 15.20	B	C
ATOM	7900	OG1	THR	265	100.081	59.983	15.029	1.00 17.05	B	O
ATOM	7901	CG2	THR	265	99.747	57.687	14.415	1.00 10.60	B	C
ATOM	7902	C	THR	265	101.818	59.211	17.279	1.00 16.13	B	C
ATOM	7903	O	THR	265	101.454	60.126	18.007	1.00 16.83	B	O
ATOM	7904	N	VAL	266	103.095	58.971	17.030	1.00 17.64	B	N
ATOM	7905	CA	VAL	266	104.118	59.781	17.667	1.00 17.49	B	C
ATOM	7906	CB	VAL	266	104.626	59.060	18.930	1.00 15.28	B	C
ATOM	7907	CG1	VAL	266	105.224	57.714	18.538	1.00 12.10	B	C
ATOM	7908	CG2	VAL	266	105.642	59.921	19.666	1.00 12.62	B	C
ATOM	7909	C	VAL	266	105.312	60.112	16.769	1.00 19.23	B	C
ATOM	7910	O	VAL	266	105.693	59.331	15.893	1.00 18.24	B	O
ATOM	7911	N	LYS	267	105.889	61.287	17.003	1.00 20.19	B	N
ATOM	7912	CA	LYS	267	107.058	61.756	16.272	1.00 19.42	B	C
ATOM	7913	CB	LYS	267	106.678	62.855	15.291	1.00 19.76	B	C
ATOM	7914	CG	LYS	267	105.786	62.413	14.168	1.00 21.59	B	C
ATOM	7915	CD	LYS	267	105.452	63.605	13.291	1.00 23.15	B	C
ATOM	7916	CE	LYS	267	104.593	63.205	12.119	1.00 23.47	B	C
ATOM	7917	NZ	LYS	267	104.225	64.402	11.334	1.00 27.20	B	N
ATOM	7918	C	LYS	267	108.032	62.334	17.288	1.00 19.59	B	C
ATOM	7919	O	LYS	267	107.618	62.826	18.336	1.00 20.86	B	O
ATOM	7920	N	PHE	268	109.322	62.275	16.984	1.00 19.32	B	N
ATOM	7921	CA	PHE	268	110.325	62.818	17.882	1.00 18.94	B	C
ATOM	7922	CB	PHE	268	111.350	61.757	18.259	1.00 17.47	B	C
ATOM	7923	CG	PHE	268	112.186	62.131	19.444	1.00 16.21	B	C
ATOM	7924	CD1	PHE	268	111.601	62.290	20.692	1.00 16.98	B	C
ATOM	7925	CD2	PHE	268	113.555	62.327	19.313	1.00 16.35	B	C
ATOM	7926	CE1	PHE	268	112.368	62.639	21.797	1.00 18.80	B	C
ATOM	7927	CE2	PHE	268	114.332	62.674	20.405	1.00 17.68	B	C
ATOM	7928	CZ	PHE	268	113.737	62.832	21.655	1.00 18.66	B	C
ATOM	7929	C	PHE	268	111.016	63.979	17.192	1.00 20.34	B	C
ATOM	7930	O	PHE	268	111.114	64.016	15.968	1.00 21.73	B	O
ATOM	7931	N	PHE	269	111.491	64.931	17.981	1.00 20.76	B	N
ATOM	7932	CA	PHE	269	112.152	66.105	17.435	1.00 20.74	B	C
ATOM	7933	CB	PHE	269	111.141	67.239	17.222	1.00 19.80	B	C
ATOM	7934	CG	PHE	269	110.070	66.937	16.216	1.00 21.88	B	C
ATOM	7935	CD1	PHE	269	110.332	67.019	14.853	1.00 22.75	B	C
ATOM	7936	CD2	PHE	269	108.785	66.605	16.631	1.00 23.20	B	C
ATOM	7937	CE1	PHE	269	109.326	66.781	13.912	1.00 21.98	B	C

(Continued)

FIG. 4-163

ATOM	7938	CE2	PHE	269	107.771	66.364	15.700	1.00	23.06	B C
ATOM	7939	CZ	PHE	269	108.044	66.454	14.337	1.00	22.44	B C
ATOM	7940	C	PHE	269	113.209	66.606	18.402	1.00	21.66	B C
ATOM	7941	O	PHE	269	113.127	66.376	19.613	1.00	21.27	B O
ATOM	7942	N	VAL	270	114.195	67.305	17.858	1.00	21.99	B N
ATOM	7943	CA	VAL	270	115.239	67.896	18.667	1.00	23.26	B C
ATOM	7944	CB	VAL	270	116.527	67.062	18.635	1.00	23.10	B C
ATOM	7945	CG1	VAL	270	117.517	67.624	19.630	1.00	23.57	B C
ATOM	7946	CG2	VAL	270	116.219	65.609	18.985	1.00	23.02	B C
ATOM	7947	C	VAL	270	115.495	69.285	18.095	1.00	25.32	B C
ATOM	7948	O	VAL	270	115.600	69.460	16.880	1.00	26.00	B O
ATOM	7949	N	VAL	271	115.561	70.278	18.973	1.00	26.96	B N
ATOM	7950	CA	VAL	271	115.794	71.650	18.546	1.00	27.45	B C
ATOM	7951	CB	VAL	271	114.516	72.514	18.714	1.00	28.95	B C
ATOM	7952	CG1	VAL	271	114.096	72.563	20.177	1.00	28.40	B C
ATOM	7953	CG2	VAL	271	114.769	73.915	18.186	1.00	29.54	B C
ATOM	7954	C	VAL	271	116.926	72.258	19.363	1.00	27.39	B C
ATOM	7955	O	VAL	271	117.094	71.935	20.536	1.00	26.71	B O
ATOM	7956	N	ASN	272	117.706	73.128	18.728	1.00	27.87	B N
ATOM	7957	CA	ASN	272	118.828	73.788	19.383	1.00	27.39	B C
ATOM	7958	CB	ASN	272	119.951	74.056	18.378	1.00	27.64	B C
ATOM	7959	CG	ASN	272	121.179	74.672	19.031	1.00	29.11	B C
ATOM	7960	OD1	ASN	272	121.094	75.706	19.696	1.00	28.35	B O
ATOM	7961	ND2	ASN	272	122.330	74.036	18.841	1.00	30.38	B N
ATOM	7962	C	ASN	272	118.347	75.104	19.972	1.00	27.43	B C
ATOM	7963	O	ASN	272	117.943	76.012	19.243	1.00	27.41	B O
ATOM	7964	N	THR	273	118.397	75.208	21.292	1.00	27.62	B N
ATOM	7965	CA	THR	273	117.938	76.411	21.959	1.00	28.77	B C
ATOM	7966	CB	THR	273	117.509	76.100	23.400	1.00	27.46	B C
ATOM	7967	OG1	THR	273	118.653	75.727	24.181	1.00	28.06	B O
ATOM	7968	CG2	THR	273	116.510	74.960	23.403	1.00	26.33	B C
ATOM	7969	C	THR	273	118.988	77.516	21.967	1.00	31.23	B C
ATOM	7970	O	THR	273	118.669	78.680	22.208	1.00	32.66	B O
ATOM	7971	N	ASP	274	120.239	77.157	21.698	1.00	32.45	B N
ATOM	7972	CA	ASP	274	121.315	78.139	21.676	1.00	33.79	B C
ATOM	7973	CB	ASP	274	122.671	77.446	21.775	1.00	34.63	B C
ATOM	7974	CG	ASP	274	123.019	77.049	23.193	1.00	36.82	B C
ATOM	7975	OD1	ASP	274	124.047	76.363	23.385	1.00	37.48	B O
ATOM	7976	OD2	ASP	274	122.267	77.430	24.117	1.00	37.18	B O
ATOM	7977	C	ASP	274	121.277	78.996	20.419	1.00	35.09	B C
ATOM	7978	O	ASP	274	121.899	80.058	20.366	1.00	34.53	B O
ATOM	7979	N	SER	275	120.540	78.542	19.412	1.00	35.53	B N
ATOM	7980	CA	SER	275	120.456	79.279	18.166	1.00	37.39	B C
ATOM	7981	CB	SER	275	121.096	78.462	17.051	1.00	36.90	B C
ATOM	7982	OG	SER	275	120.476	77.197	16.948	1.00	41.05	B O
ATOM	7983	C	SER	275	119.030	79.652	17.781	1.00	39.58	B C
ATOM	7984	O	SER	275	118.580	79.355	16.673	1.00	40.66	B O
ATOM	7985	N	LEU	276	118.323	80.311	18.695	1.00	40.56	B N
ATOM	7986	CA	LEU	276	116.949	80.732	18.443	1.00	40.53	B C

FIG. 4-164 (Continued)

ATOM	7987	CB	LEU	276	116.076	80.425	19.664	1.00	38.58	B C
ATOM	7988	CG	LEU	276	116.002	78.958	20.097	1.00	36.34	B C
ATOM	7989	CD1	LEU	276	115.319	78.876	21.445	1.00	35.16	B C
ATOM	7990	CD2	LEU	276	115.261	78.134	19.057	1.00	32.57	B C
ATOM	7991	C	LEU	276	116.914	82.229	18.140	1.00	41.99	B C
ATOM	7992	O	LEU	276	117.675	83.002	18.721	1.00	41.16	B O
ATOM	7993	N	SER	277	116.029	82.634	17.233	1.00	44.02	B N
ATOM	7994	CA	SER	277	115.916	84.044	16.863	1.00	46.53	B C
ATOM	7995	CB	SER	277	116.489	84.277	15.462	1.00	48.49	B C
ATOM	7996	OG	SER	277	116.268	85.618	15.044	1.00	50.90	B O
ATOM	7997	C	SER	277	114.494	84.586	16.902	1.00	46.23	B C
ATOM	7998	O	SER	277	113.529	83.856	16.701	1.00	46.82	B O
ATOM	7999	N	SER	278	114.378	85.884	17.148	1.00	46.94	B N
ATOM	8000	CA	SER	278	113.081	86.535	17.202	1.00	47.82	B C
ATOM	8001	CB	SER	278	113.204	87.899	17.884	1.00	48.09	B C
ATOM	8002	OG	SER	278	113.617	87.759	19.234	1.00	49.14	B O
ATOM	8003	C	SER	278	112.531	86.710	15.794	1.00	48.26	B C
ATOM	8004	O	SER	278	111.325	86.829	15.600	1.00	48.73	B O
ATOM	8005	N	VAL	279	113.419	86.723	14.808	1.00	48.48	B N
ATOM	8006	CA	VAL	279	112.995	86.889	13.428	1.00	48.89	B C
ATOM	8007	CB	VAL	279	114.189	87.229	12.514	1.00	49.95	B C
ATOM	8008	CG1	VAL	279	113.709	87.454	11.089	1.00	50.61	B C
ATOM	8009	CG2	VAL	279	114.902	88.464	13.037	1.00	50.28	B C
ATOM	8010	C	VAL	279	112.340	85.606	12.941	1.00	48.52	B C
ATOM	8011	O	VAL	279	111.130	85.433	13.082	1.00	49.49	B O
ATOM	8012	N	THR	280	113.145	84.708	12.380	1.00	47.70	B N
ATOM	8013	CA	THR	280	112.651	83.432	11.872	1.00	46.64	B C
ATOM	8014	CB	THR	280	113.719	82.709	11.032	1.00	47.86	B C
ATOM	8015	OG1	THR	280	113.179	81.479	10.531	1.00	48.07	B O
ATOM	8016	CG2	THR	280	114.946	82.399	11.883	1.00	47.49	B C
ATOM	8017	C	THR	280	112.238	82.484	12.992	1.00	45.40	B C
ATOM	8018	O	THR	280	112.586	82.677	14.155	1.00	44.24	B O
ATOM	8019	N	ASN	281	111.499	81.447	12.622	1.00	45.09	B N
ATOM	8020	CA	ASN	281	111.040	80.454	13.581	1.00	44.81	B C
ATOM	8021	CB	ASN	281	109.744	79.815	13.089	1.00	46.08	B C
ATOM	8022	CG	ASN	281	108.592	80.786	13.096	1.00	48.90	B C
ATOM	8023	OD1	ASN	281	108.351	81.455	14.101	1.00	49.62	B O
ATOM	8024	ND2	ASN	281	107.873	80.868	11.984	1.00	52.14	B N
ATOM	8025	C	ASN	281	112.088	79.379	13.812	1.00	43.47	B C
ATOM	8026	O	ASN	281	112.874	79.065	12.919	1.00	44.44	B O
ATOM	8027	N	ALA	282	112.100	78.823	15.019	1.00	41.76	B N
ATOM	8028	CA	ALA	282	113.045	77.773	15.371	1.00	38.62	B C
ATOM	8029	CB	ALA	282	112.795	77.301	16.792	1.00	37.75	B C
ATOM	8030	C	ALA	282	112.863	76.619	14.403	1.00	37.34	B C
ATOM	8031	O	ALA	282	111.797	76.463	13.815	1.00	36.86	B O
ATOM	8032	N	THR	283	113.905	75.816	14.231	1.00	36.50	B N
ATOM	8033	CA	THR	283	113.828	74.672	13.335	1.00	35.84	B C
ATOM	8034	CB	THR	283	114.867	74.772	12.218	1.00	37.70	B C
ATOM	8035	OG1	THR	283	114.665	75.994	11.495	1.00	41.71	B O

(Continued)

FIG. 4-165

ATOM	8036	CG2	THR	283	114.736	73.595	11.265	1.00	37.32	B	C
ATOM	8037	C	THR	283	114.074	73.403	14.125	1.00	33.58	B	C
ATOM	8038	O	THR	283	115.098	73.263	14.774	1.00	34.31	B	O
ATOM	8039	N	SER	284	113.123	72.482	14.073	1.00	32.05	B	N
ATOM	8040	CA	SER	284	113.250	71.230	14.800	1.00	30.43	B	C
ATOM	8041	CB	SER	284	111.935	70.893	15.507	1.00	28.61	B	C
ATOM	8042	OG	SER	284	111.722	71.761	16.605	1.00	29.31	B	O
ATOM	8043	C	SER	284	113.638	70.090	13.883	1.00	30.34	B	C
ATOM	8044	O	SER	284	113.003	69.865	12.850	1.00	31.22	B	O
ATOM	8045	N	ILE	285	114.684	69.367	14.260	1.00	29.19	B	N
ATOM	8046	CA	ILE	285	115.130	68.241	13.457	1.00	28.80	B	C
ATOM	8047	CB	ILE	285	116.660	68.037	13.546	1.00	29.35	B	C
ATOM	8048	CG2	ILE	285	117.103	66.979	12.548	1.00	29.12	B	C
ATOM	8049	CG1	ILE	285	117.383	69.350	13.250	1.00	30.38	B	C
ATOM	8050	CD1	ILE	285	117.408	70.303	14.428	1.00	34.47	B	C
ATOM	8051	C	ILE	285	114.429	66.996	13.976	1.00	28.14	B	C
ATOM	8052	O	ILE	285	114.472	66.694	15.168	1.00	30.23	B	O
ATOM	8053	N	GLN	286	113.775	66.278	13.078	1.00	25.84	B	N
ATOM	8054	CA	GLN	286	113.067	65.076	13.457	1.00	24.81	B	C
ATOM	8055	CB	GLN	286	111.852	64.886	12.550	1.00	23.81	B	C
ATOM	8056	CG	GLN	286	111.169	63.547	12.715	1.00	23.29	B	C
ATOM	8057	CD	GLN	286	109.928	63.417	11.868	1.00	23.98	B	C
ATOM	8058	OE1	GLN	286	109.253	62.388	11.894	1.00	25.22	B	O
ATOM	8059	NE2	GLN	286	109.614	64.461	11.110	1.00	23.87	B	N
ATOM	8060	C	GLN	286	113.955	63.838	13.386	1.00	25.74	B	C
ATOM	8061	O	GLN	286	114.832	63.732	12.526	1.00	26.39	B	O
ATOM	8062	N	ILE	287	113.723	62.908	14.307	1.00	24.54	B	N
ATOM	8063	CA	ILE	287	114.458	61.655	14.346	1.00	23.40	B	C
ATOM	8064	CB	ILE	287	115.193	61.481	15.694	1.00	21.87	B	C
ATOM	8065	CG2	ILE	287	115.925	60.143	15.728	1.00	20.61	B	C
ATOM	8066	CG1	ILE	287	116.180	62.632	15.887	1.00	19.27	B	C
ATOM	8067	CD1	ILE	287	117.054	62.506	17.113	1.00	20.58	B	C
ATOM	8068	C	ILE	287	113.394	60.578	14.186	1.00	24.59	B	C
ATOM	8069	O	ILE	287	112.729	60.204	15.142	1.00	27.03	B	O
ATOM	8070	N	THR	288	113.219	60.093	12.966	1.00	25.43	B	N
ATOM	8071	CA	THR	288	112.205	59.088	12.708	1.00	26.10	B	C
ATOM	8072	CB	THR	288	111.964	58.927	11.188	1.00	26.69	B	C
ATOM	8073	OG1	THR	288	113.172	58.516	10.539	1.00	26.37	B	O
ATOM	8074	CG2	THR	288	111.510	60.255	10.593	1.00	25.25	B	C
ATOM	8075	C	THR	288	112.529	57.741	13.335	1.00	26.85	B	C
ATOM	8076	O	THR	288	113.687	57.379	13.503	1.00	27.04	B	O
ATOM	8077	N	ALA	289	111.484	57.011	13.702	1.00	28.37	B	N
ATOM	8078	CA	ALA	289	111.638	55.705	14.325	1.00	27.90	B	C
ATOM	8079	CB	ALA	289	110.271	55.151	14.710	1.00	26.91	B	C
ATOM	8080	C	ALA	289	112.348	54.740	13.380	1.00	27.44	B	C
ATOM	8081	O	ALA	289	112.550	55.038	12.205	1.00	28.30	B	O
ATOM	8082	N	PRO	290	112.758	53.577	13.895	1.00	26.01	B	N
ATOM	8083	CD	PRO	290	112.903	53.280	15.328	1.00	24.74	B	C
ATOM	8084	CA	PRO	290	113.445	52.569	13.089	1.00	25.29	B	C

(Continued)

FIG. 4-166

ATOM	8085	CB	PRO	290	113.949	51.587	14.138	1.00 25.76	B	C
ATOM	8086	CG	PRO	290	114.151	52.467	15.342	1.00 25.10	B	C
ATOM	8087	C	PRO	290	112.465	51.931	12.110	1.00 25.85	B	C
ATOM	8088	O	PRO	290	111.255	51.961	12.330	1.00 25.95	B	O
ATOM	8089	N	ALA	291	112.988	51.345	11.038	1.00 25.39	B	N
ATOM	8090	CA	ALA	291	112.143	50.730	10.024	1.00 26.17	B	C
ATOM	8091	CB	ALA	291	112.987	50.271	8.846	1.00 26.28	B	C
ATOM	8092	C	ALA	291	111.337	49.568	10.573	1.00 27.18	B	C
ATOM	8093	O	ALA	291	110.203	49.331	10.145	1.00 27.46	B	O
ATOM	8094	N	SER	292	111.916	48.843	11.521	1.00 27.54	B	N
ATOM	8095	CA	SER	292	111.220	47.704	12.103	1.00 28.19	B	C
ATOM	8096	CB	SER	292	112.161	46.892	12.993	1.00 28.00	B	C
ATOM	8097	OG	SER	292	112.525	47.626	14.145	1.00 32.22	B	O
ATOM	8098	C	SER	292	110.027	48.182	12.922	1.00 28.13	B	C
ATOM	8099	O	SER	292	109.176	47.376	13.307	1.00 29.52	B	O
ATOM	8100	N	MET	293	109.976	49.487	13.190	1.00 25.00	B	N
ATOM	8101	CA	MET	293	108.881	50.072	13.955	1.00 24.80	B	C
ATOM	8102	CB	MET	293	109.387	51.173	14.892	1.00 24.61	B	C
ATOM	8103	CG	MET	293	110.231	50.703	16.060	1.00 26.88	B	C
ATOM	8104	SD	MET	293	109.323	49.647	17.189	1.00 27.80	B	S
ATOM	8105	CE	MET	293	110.457	48.319	17.438	1.00 25.74	B	C
ATOM	8106	C	MET	293	107.836	50.677	13.027	1.00 24.57	B	C
ATOM	8107	O	MET	293	106.641	50.528	13.252	1.00 25.32	B	O
ATOM	8108	N	LEU	294	108.292	51.360	11.983	1.00 24.37	B	N
ATOM	8109	CA	LEU	294	107.393	52.008	11.041	1.00 23.80	B	C
ATOM	8110	CB	LEU	294	108.183	52.930	10.114	1.00 23.40	B	C
ATOM	8111	CG	LEU	294	108.945	54.072	10.786	1.00 24.87	B	C
ATOM	8112	CD1	LEU	294	109.806	54.787	9.758	1.00 22.08	B	C
ATOM	8113	CD2	LEU	294	107.958	55.037	11.440	1.00 23.08	B	C
ATOM	8114	C	LEU	294	106.540	51.059	10.204	1.00 23.95	B	C
ATOM	8115	O	LEU	294	105.714	51.510	9.422	1.00 25.36	B	O
ATOM	8116	N	ILE	295	106.724	49.754	10.357	1.00 23.92	B	N
ATOM	8117	CA	ILE	295	105.923	48.812	9.580	1.00 25.26	B	C
ATOM	8118	CB	ILE	295	106.601	47.444	9.453	1.00 26.06	B	C
ATOM	8119	CG2	ILE	295	107.972	47.595	8.812	1.00 26.54	B	C
ATOM	8120	CG1	ILE	295	106.698	46.796	10.831	1.00 24.44	B	C
ATOM	8121	CD1	ILE	295	107.211	45.388	10.789	1.00 28.37	B	C
ATOM	8122	C	ILE	295	104.564	48.575	10.221	1.00 26.01	B	C
ATOM	8123	O	ILE	295	103.805	47.712	9.775	1.00 28.75	B	O
ATOM	8124	N	GLY	296	104.263	49.328	11.273	1.00 24.77	B	N
ATOM	8125	CA	GLY	296	102.992	49.167	11.951	1.00 22.28	B	C
ATOM	8126	C	GLY	296	102.908	50.040	13.182	1.00 21.29	B	C
ATOM	8127	O	GLY	296	103.820	50.818	13.447	1.00 20.80	B	O
ATOM	8128	N	ASP	297	101.818	49.920	13.935	1.00 20.38	B	N
ATOM	8129	CA	ASP	297	101.654	50.718	15.141	1.00 20.14	B	C
ATOM	8130	CB	ASP	297	100.366	50.339	15.874	1.00 21.58	B	C
ATOM	8131	CG	ASP	297	99.109	50.665	15.078	1.00 22.60	B	C
ATOM	8132	OD1	ASP	297	98.016	50.234	15.502	1.00 25.00	B	O
ATOM	8133	OD2	ASP	297	99.200	51.350	14.041	1.00 22.18	B	O

(Continued)

FIG. 4-167

ATOM	8134	C	ASP	297	102.845	50.481	16.065	1.00	20.31	B	C
ATOM	8135	O	ASP	297	103.419	49.390	16.096	1.00	20.82	B	O
ATOM	8136	N	HIS	298	103.220	51.508	16.814	1.00	16.87	B	N
ATOM	8137	CA	HIS	298	104.335	51.384	17.734	1.00	16.48	B	C
ATOM	8138	CB	HIS	298	105.669	51.399	16.968	1.00	14.91	B	C
ATOM	8139	CG	HIS	298	105.868	52.628	16.137	1.00	12.24	B	C
ATOM	8140	CD2	HIS	298	106.539	53.775	16.391	1.00	10.39	B	C
ATOM	8141	ND1	HIS	298	105.264	52.802	14.909	1.00	11.35	B	N
ATOM	8142	CE1	HIS	298	105.551	54.005	14.445	1.00	11.25	B	C
ATOM	8143	NE2	HIS	298	106.323	54.616	15.326	1.00	11.96	B	N
ATOM	8144	C	HIS	298	104.274	52.560	18.693	1.00	15.84	B	C
ATOM	8145	O	HIS	298	103.484	53.476	18.505	1.00	17.04	B	O
ATOM	8146	N	TYR	299	105.127	52.539	19.706	1.00	15.50	B	N
ATOM	8147	CA	TYR	299	105.163	53.599	20.698	1.00	15.35	B	C
ATOM	8148	CB	TYR	299	104.640	53.095	22.047	1.00	14.51	B	C
ATOM	8149	CG	TYR	299	103.343	52.320	22.037	1.00	14.30	B	C
ATOM	8150	CD1	TYR	299	102.120	52.973	21.942	1.00	13.49	B	C
ATOM	8151	CE1	TYR	299	100.924	52.269	22.019	1.00	15.63	B	C
ATOM	8152	CD2	TYR	299	103.341	50.933	22.198	1.00	14.56	B	C
ATOM	8153	CE2	TYR	299	102.150	50.216	22.273	1.00	15.40	B	C
ATOM	8154	CZ	TYR	299	100.943	50.891	22.186	1.00	15.73	B	C
ATOM	8155	OH	TYR	299	99.756	50.197	22.286	1.00	15.37	B	O
ATOM	8156	C	TYR	299	106.583	54.084	20.952	1.00	16.54	B	C
ATOM	8157	O	TYR	299	107.559	53.364	20.732	1.00	15.53	B	O
ATOM	8158	N	LEU	300	106.688	55.316	21.428	1.00	16.67	B	N
ATOM	8159	CA	LEU	300	107.975	55.853	21.818	1.00	17.75	B	C
ATOM	8160	CB	LEU	300	107.986	57.367	21.654	1.00	18.54	B	C
ATOM	8161	CG	LEU	300	109.238	58.059	22.183	1.00	20.06	B	C
ATOM	8162	CD1	LEU	300	110.449	57.535	21.429	1.00	20.50	B	C
ATOM	8163	CD2	LEU	300	109.107	59.567	22.024	1.00	20.10	B	C
ATOM	8164	C	LEU	300	107.897	55.477	23.294	1.00	18.55	B	C
ATOM	8165	O	LEU	300	106.894	55.783	23.935	1.00	20.71	B	O
ATOM	8166	N	CYS	301	108.901	54.805	23.849	1.00	18.50	B	N
ATOM	8167	CA	CYS	301	108.788	54.418	25.252	1.00	20.22	B	C
ATOM	8168	CB	CYS	301	108.582	52.907	25.375	1.00	20.55	B	C
ATOM	8169	SG	CYS	301	109.922	51.905	24.722	1.00	26.11	B	S
ATOM	8170	C	CYS	301	109.895	54.842	26.194	1.00	20.82	B	C
ATOM	8171	O	CYS	301	109.816	54.579	27.395	1.00	21.62	B	O
ATOM	8172	N	ASP	302	110.922	55.496	25.662	1.00	22.13	B	N
ATOM	8173	CA	ASP	302	112.035	55.968	26.481	1.00	20.03	B	C
ATOM	8174	CB	ASP	302	112.875	54.810	27.014	1.00	20.49	B	C
ATOM	8175	CG	ASP	302	114.035	55.296	27.868	1.00	25.77	B	C
ATOM	8176	OD1	ASP	302	113.880	55.344	29.109	1.00	26.02	B	O
ATOM	8177	OD2	ASP	302	115.097	55.664	27.297	1.00	27.73	B	O
ATOM	8178	C	ASP	302	112.959	56.894	25.711	1.00	20.08	B	C
ATOM	8179	O	ASP	302	113.367	56.596	24.586	1.00	19.30	B	O
ATOM	8180	N	VAL	303	113.302	58.010	26.343	1.00	20.41	B	N
ATOM	8181	CA	VAL	303	114.188	59.000	25.756	1.00	20.36	B	C
ATOM	8182	CB	VAL	303	113.435	60.316	25.470	1.00	19.97	B	C

(Continued)

FIG. 4-168

ATOM	8183	CG1	VAL	303	114.387	61.347	24.857	1.00	20.23	B	C
ATOM	8184	CG2	VAL	303	112.260	60.043	24.540	1.00	17.52	B	C
ATOM	8185	C	VAL	303	115.267	59.251	26.788	1.00	21.02	B	C
ATOM	8186	O	VAL	303	114.950	59.568	27.939	1.00	19.39	B	O
ATOM	8187	N	THR	304	116.536	59.112	26.389	1.00	21.38	B	N
ATOM	8188	CA	THR	304	117.639	59.313	27.332	1.00	21.48	B	C
ATOM	8189	CB	THR	304	118.008	58.002	28.046	1.00	19.77	B	C
ATOM	8190	OG1	THR	304	116.869	57.496	28.751	1.00	19.55	B	O
ATOM	8191	CG2	THR	304	119.136	58.242	29.026	1.00	20.57	B	C
ATOM	8192	C	THR	304	118.925	59.851	26.729	1.00	22.96	B	C
ATOM	8193	O	THR	304	119.579	59.159	25.952	1.00	25.30	B	O
ATOM	8194	N	TRP	305	119.307	61.069	27.102	1.00	22.41	B	N
ATOM	8195	CA	TRP	305	120.545	61.643	26.583	1.00	21.86	B	C
ATOM	8196	CB	TRP	305	120.696	63.114	26.975	1.00	20.21	B	C
ATOM	8197	CG	TRP	305	119.682	64.002	26.354	1.00	18.90	B	C
ATOM	8198	CD2	TRP	305	119.834	64.751	25.150	1.00	18.79	B	C
ATOM	8199	CE2	TRP	305	118.614	65.413	24.917	1.00	20.14	B	C
ATOM	8200	CE3	TRP	305	120.885	64.928	24.243	1.00	18.65	B	C
ATOM	8201	CD1	TRP	305	118.414	64.232	26.794	1.00	17.49	B	C
ATOM	8202	NE1	TRP	305	117.764	65.077	25.938	1.00	18.37	B	N
ATOM	8203	CZ2	TRP	305	118.413	66.242	23.812	1.00	19.16	B	C
ATOM	8204	CZ3	TRP	305	120.689	65.746	23.152	1.00	19.59	B	C
ATOM	8205	CH2	TRP	305	119.459	66.395	22.943	1.00	21.43	B	C
ATOM	8206	C	TRP	305	121.722	60.875	27.148	1.00	22.21	B	C
ATOM	8207	O	TRP	305	121.743	60.552	28.338	1.00	21.63	B	O
ATOM	8208	N	ALA	306	122.697	60.591	26.285	1.00	22.53	B	N
ATOM	8209	CA	ALA	306	123.899	59.864	26.673	1.00	21.31	B	C
ATOM	8210	CB	ALA	306	124.350	58.969	25.533	1.00	20.65	B	C
ATOM	8211	C	ALA	306	124.975	60.882	27.000	1.00	21.97	B	C
ATOM	8212	O	ALA	306	125.675	60.767	28.007	1.00	20.32	B	O
ATOM	8213	N	THR	307	125.086	61.885	26.133	1.00	23.85	B	N
ATOM	8214	CA	THR	307	126.057	62.964	26.284	1.00	24.42	B	C
ATOM	8215	CB	THR	307	127.285	62.744	25.411	1.00	22.67	B	C
ATOM	8216	OG1	THR	307	126.894	62.855	24.040	1.00	25.33	B	O
ATOM	8217	CG2	THR	307	127.892	61.374	25.659	1.00	19.34	B	C
ATOM	8218	C	THR	307	125.397	64.250	25.812	1.00	25.73	B	C
ATOM	8219	O	THR	307	124.177	64.326	25.731	1.00	28.17	B	O
ATOM	8220	N	GLN	308	126.210	65.249	25.479	1.00	26.09	B	N
ATOM	8221	CA	GLN	308	125.699	66.540	25.022	1.00	24.49	B	C
ATOM	8222	CB	GLN	308	126.762	67.634	25.175	1.00	22.95	B	C
ATOM	8223	CG	GLN	308	127.301	67.811	26.574	1.00	21.20	B	C
ATOM	8224	CD	GLN	308	126.256	68.296	27.548	1.00	20.30	B	C
ATOM	8225	OE1	GLN	308	126.477	68.290	28.754	1.00	23.08	B	O
ATOM	8226	NE2	GLN	308	125.116	68.727	27.032	1.00	21.02	B	N
ATOM	8227	C	GLN	308	125.284	66.501	23.569	1.00	25.09	B	C
ATOM	8228	O	GLN	308	124.612	67.411	23.095	1.00	26.23	B	O
ATOM	8229	N	GLU	309	125.687	65.459	22.855	1.00	25.59	B	N
ATOM	8230	CA	GLU	309	125.370	65.374	21.440	1.00	26.16	B	C
ATOM	8231	CB	GLU	309	126.581	65.807	20.627	1.00	25.99	B	C

(Continued)

FIG. 4-169

ATOM	8232	CG	GLU	309	126.925	67.280	20.774	1.00	29.27	B C
ATOM	8233	CD	GLU	309	128.243	67.637	20.109	1.00	31.48	B C
ATOM	8234	OE1	GLU	309	128.614	66.968	19.115	1.00	33.35	B O
ATOM	8235	OE2	GLU	309	128.900	68.593	20.572	1.00	32.54	B O
ATOM	8236	C	GLU	309	124.939	63.991	21.004	1.00	26.83	B C
ATOM	8237	O	GLU	309	124.850	63.712	19.806	1.00	28.64	B O
ATOM	8238	N	ARG	310	124.674	63.131	21.982	1.00	25.93	B N
ATOM	8239	CA	ARG	310	124.246	61.765	21.723	1.00	24.07	B C
ATOM	8240	CB	ARG	310	125.357	60.790	22.121	1.00	24.28	B C
ATOM	8241	CG	ARG	310	125.012	59.317	21.952	1.00	25.64	B C
ATOM	8242	CD	ARG	310	126.255	58.469	22.132	1.00	24.20	B C
ATOM	8243	NE	ARG	310	127.225	58.790	21.097	1.00	25.36	B N
ATOM	8244	CZ	ARG	310	128.533	58.590	21.195	1.00	26.41	B C
ATOM	8245	NH1	ARG	310	129.056	58.063	22.298	1.00	26.17	B N
ATOM	8246	NH2	ARG	310	129.321	58.928	20.183	1.00	26.60	B N
ATOM	8247	C	ARG	310	122.984	61.488	22.528	1.00	23.55	B C
ATOM	8248	O	ARG	310	122.965	61.607	23.757	1.00	23.67	B O
ATOM	8249	N	ILE	311	121.922	61.124	21.829	1.00	21.75	B N
ATOM	8250	CA	ILE	311	120.663	60.843	22.491	1.00	20.40	B C
ATOM	8251	CB	ILE	311	119.586	61.876	22.067	1.00	18.52	B C
ATOM	8252	CG2	ILE	311	119.293	61.742	20.593	1.00	18.77	B C
ATOM	8253	CG1	ILE	311	118.305	61.686	22.879	1.00	18.16	B C
ATOM	8254	CD1	ILE	311	117.255	62.774	22.626	1.00	15.33	B C
ATOM	8255	C	ILE	311	120.233	59.440	22.107	1.00	20.81	B C
ATOM	8256	O	ILE	311	120.380	59.036	20.959	1.00	21.43	B O
ATOM	8257	N	SER	312	119.734	58.686	23.080	1.00	21.54	B N
ATOM	8258	CA	SER	312	119.269	57.326	22.832	1.00	21.49	B C
ATOM	8259	CB	SER	312	119.889	56.355	23.837	1.00	22.73	B C
ATOM	8260	OG	SER	312	119.365	56.575	25.132	1.00	23.02	B O
ATOM	8261	C	SER	312	117.758	57.315	22.985	1.00	20.72	B C
ATOM	8262	O	SER	312	117.214	57.998	23.853	1.00	22.17	B O
ATOM	8263	N	LEU	313	117.088	56.544	22.136	1.00	21.93	B N
ATOM	8264	CA	LEU	313	115.631	56.428	22.155	1.00	22.17	B C
ATOM	8265	CB	LEU	313	115.013	57.179	20.979	1.00	23.76	B C
ATOM	8266	CG	LEU	313	115.314	58.656	20.754	1.00	27.56	B C
ATOM	8267	CD1	LEU	313	114.707	59.068	19.410	1.00	29.23	B C
ATOM	8268	CD2	LEU	313	114.740	59.497	21.890	1.00	28.89	B C
ATOM	8269	C	LEU	313	115.229	54.968	22.022	1.00	22.50	B C
ATOM	8270	O	LEU	313	115.868	54.209	21.293	1.00	22.55	B O
ATOM	8271	N	GLN	314	114.167	54.579	22.722	1.00	22.54	B N
ATOM	8272	CA	GLN	314	113.666	53.216	22.639	1.00	23.08	B C
ATOM	8273	CB	GLN	314	113.682	52.549	24.012	1.00	22.45	B C
ATOM	8274	CG	GLN	314	115.065	52.459	24.626	1.00	25.62	B C
ATOM	8275	CD	GLN	314	115.092	51.630	25.898	1.00	26.36	B C
ATOM	8276	OE1	GLN	314	114.835	50.428	25.870	1.00	27.68	B O
ATOM	8277	NE2	GLN	314	115.403	52.273	27.023	1.00	25.65	B N
ATOM	8278	C	GLN	314	112.242	53.240	22.083	1.00	23.35	B C
ATOM	8279	O	GLN	314	111.412	54.045	22.513	1.00	22.96	B O
ATOM	8280	N	TRP	315	111.984	52.372	21.108	1.00	22.35	B N

(Continued)

FIG. 4-170

ATOM	8281	CA	TRP	315	110.672	52.262	20.484	1.00	21.75	B	C
ATOM	8282	CB	TRP	315	110.769	52.440	18.968	1.00	21.09	B	C
ATOM	8283	CG	TRP	315	111.376	53.741	18.540	1.00	21.09	B	C
ATOM	8284	CD2	TRP	315	110.678	54.940	18.176	1.00	19.81	B	C
ATOM	8285	CE2	TRP	315	111.654	55.901	17.824	1.00	20.24	B	C
ATOM	8286	CE3	TRP	315	109.325	55.295	18.113	1.00	17.16	B	C
ATOM	8287	CD1	TRP	315	112.705	54.018	18.405	1.00	21.12	B	C
ATOM	8288	NE1	TRP	315	112.880	55.310	17.974	1.00	21.84	B	N
ATOM	8289	CZ2	TRP	315	111.321	57.197	17.413	1.00	18.97	B	C
ATOM	8290	CZ3	TRP	315	108.992	56.588	17.704	1.00	20.13	B	C
ATOM	8291	CH2	TRP	315	109.990	57.522	17.359	1.00	19.26	B	C
ATOM	8292	C	TRP	315	110.118	50.880	20.790	1.00	22.37	B	C
ATOM	8293	O	TRP	315	110.877	49.922	20.941	1.00	24.80	B	O
ATOM	8294	N	LEU	316	108.799	50.772	20.872	1.00	21.02	B	N
ATOM	8295	CA	LEU	316	108.159	49.502	21.184	1.00	20.90	B	C
ATOM	8296	CB	LEU	316	107.653	49.544	22.628	1.00	19.84	B	C
ATOM	8297	CG	LEU	316	106.866	48.358	23.194	1.00	19.46	B	C
ATOM	8298	CD1	LEU	316	107.786	47.157	23.408	1.00	18.22	B	C
ATOM	8299	CD2	LEU	316	106.223	48.783	24.501	1.00	16.50	B	C
ATOM	8300	C	LEU	316	106.995	49.228	20.229	1.00	20.90	B	C
ATOM	8301	O	LEU	316	106.161	50.098	20.000	1.00	22.41	B	O
ATOM	8302	N	ARG	317	106.941	48.026	19.666	1.00	19.89	B	N
ATOM	8303	CA	ARG	317	105.851	47.678	18.753	1.00	20.30	B	C
ATOM	8304	CB	ARG	317	106.154	46.362	18.035	1.00	20.73	B	C
ATOM	8305	CG	ARG	317	107.248	46.480	16.993	1.00	23.49	B	C
ATOM	8306	CD	ARG	317	107.524	45.149	16.321	1.00	24.95	B	C
ATOM	8307	NE	ARG	317	108.347	45.314	15.128	1.00	25.57	B	N
ATOM	8308	CZ	ARG	317	108.925	44.313	14.476	1.00	26.73	B	C
ATOM	8309	NH1	ARG	317	108.775	43.061	14.897	1.00	23.81	B	N
ATOM	8310	NH2	ARG	317	109.656	44.567	13.401	1.00	29.12	B	N
ATOM	8311	C	ARG	317	104.537	47.545	19.512	1.00	19.31	B	C
ATOM	8312	O	ARG	317	104.541	47.266	20.713	1.00	17.59	B	O
ATOM	8313	N	ARG	318	103.415	47.747	18.820	1.00	18.54	B	N
ATOM	8314	CA	ARG	318	102.117	47.621	19.476	1.00	17.04	B	C
ATOM	8315	CB	ARG	318	100.970	47.781	18.483	1.00	17.09	B	C
ATOM	8316	CG	ARG	318	99.608	47.794	19.164	1.00	17.74	B	C
ATOM	8317	CD	ARG	318	98.613	48.660	18.414	1.00	16.48	B	C
ATOM	8318	NE	ARG	318	97.326	48.672	19.092	1.00	16.05	B	N
ATOM	8319	CZ	ARG	318	96.320	49.478	18.771	1.00	17.02	B	C
ATOM	8320	NH1	ARG	318	96.464	50.342	17.771	1.00	13.59	B	N
ATOM	8321	NH2	ARG	318	95.180	49.428	19.460	1.00	12.42	B	N
ATOM	8322	C	ARG	318	102.085	46.251	20.132	1.00	15.28	B	C
ATOM	8323	O	ARG	318	101.569	46.103	21.234	1.00	15.74	B	O
ATOM	8324	N	ILE	319	102.627	45.251	19.440	1.00	15.27	B	N
ATOM	8325	CA	ILE	319	102.757	43.912	20.007	1.00	15.37	B	C
ATOM	8326	CB	ILE	319	103.006	42.848	18.949	1.00	15.60	B	C
ATOM	8327	CG2	ILE	319	103.268	41.519	19.621	1.00	17.64	B	C
ATOM	8328	CG1	ILE	319	101.793	42.732	18.036	1.00	15.37	B	C
ATOM	8329	CD1	ILE	319	100.524	42.425	18.781	1.00	15.54	B	C

(Continued)

FIG. 4-171

ATOM	8330	C	ILE	319	104.036	44.122	20.802	1.00	16.78	B	C
ATOM	8331	O	ILE	319	105.145	44.086	20.257	1.00	16.37	B	O
ATOM	8332	N	GLN	320	103.850	44.367	22.092	1.00	17.82	B	N
ATOM	8333	CA	GLN	320	104.923	44.693	23.016	1.00	18.01	B	C
ATOM	8334	CB	GLN	320	104.293	45.341	24.248	1.00	16.84	B	C
ATOM	8335	CG	GLN	320	103.383	46.495	23.863	1.00	16.48	B	C
ATOM	8336	CD	GLN	320	102.833	47.250	25.048	1.00	17.06	B	C
ATOM	8337	OE1	GLN	320	103.544	47.509	26.016	1.00	18.02	B	O
ATOM	8338	NE2	GLN	320	101.566	47.633	24.966	1.00	16.46	B	N
ATOM	8339	C	GLN	320	105.964	43.663	23.437	1.00	18.97	B	C
ATOM	8340	O	GLN	320	106.399	43.654	24.594	1.00	20.18	B	O
ATOM	8341	N	ASN	321	106.382	42.800	22.520	1.00	19.64	B	N
ATOM	8342	CA	ASN	321	107.420	41.846	22.875	1.00	21.44	B	C
ATOM	8343	CB	ASN	321	106.950	40.399	22.719	1.00	23.79	B	C
ATOM	8344	CG	ASN	321	106.409	40.085	21.332	1.00	27.68	B	C
ATOM	8345	OD1	ASN	321	106.593	40.839	20.374	1.00	28.16	B	O
ATOM	8346	ND2	ASN	321	105.745	38.934	21.255	1.00	30.91	B	N
ATOM	8347	C	ASN	321	108.658	42.087	22.036	1.00	21.63	B	C
ATOM	8348	O	ASN	321	109.533	41.228	21.940	1.00	23.87	B	O
ATOM	8349	N	TYR	322	108.735	43.275	21.444	1.00	20.56	B	N
ATOM	8350	CA	TYR	322	109.873	43.644	20.613	1.00	18.63	B	C
ATOM	8351	CB	TYR	322	109.605	43.208	19.178	1.00	18.95	B	C
ATOM	8352	CG	TYR	322	110.766	43.362	18.228	1.00	21.29	B	C
ATOM	8353	CD1	TYR	322	111.086	44.604	17.677	1.00	21.18	B	C
ATOM	8354	CE1	TYR	322	112.118	44.733	16.759	1.00	22.17	B	C
ATOM	8355	CD2	TYR	322	111.520	42.252	17.840	1.00	20.55	B	C
ATOM	8356	CE2	TYR	322	112.557	42.372	16.925	1.00	21.33	B	C
ATOM	8357	CZ	TYR	322	112.847	43.611	16.387	1.00	22.88	B	C
ATOM	8358	OH	TYR	322	113.855	43.726	15.461	1.00	28.00	B	O
ATOM	8359	C	TYR	322	110.115	45.149	20.678	1.00	18.95	B	C
ATOM	8360	O	TYR	322	109.240	45.945	20.338	1.00	20.45	B	O
ATOM	8361	N	SER	323	111.299	45.537	21.139	1.00	18.50	B	N
ATOM	8362	CA	SER	323	111.657	46.946	21.233	1.00	17.89	B	C
ATOM	8363	CB	SER	323	111.623	47.418	22.684	1.00	18.88	B	C
ATOM	8364	OG	SER	323	112.602	46.740	23.444	1.00	21.21	B	O
ATOM	8365	C	SER	323	113.057	47.131	20.677	1.00	16.99	B	C
ATOM	8366	O	SER	323	113.851	46.190	20.657	1.00	15.79	B	O
ATOM	8367	N	VAL	324	113.360	48.345	20.230	1.00	16.51	B	N
ATOM	8368	CA	VAL	324	114.672	48.638	19.664	1.00	17.39	B	C
ATOM	8369	CB	VAL	324	114.612	48.684	18.126	1.00	18.70	B	C
ATOM	8370	CG1	VAL	324	113.454	49.550	17.692	1.00	22.04	B	C
ATOM	8371	CG2	VAL	324	115.901	49.257	17.565	1.00	20.08	B	C
ATOM	8372	C	VAL	324	115.201	49.970	20.151	1.00	16.54	B	C
ATOM	8373	O	VAL	324	114.460	50.946	20.243	1.00	19.05	B	O
ATOM	8374	N	MET	325	116.487	50.011	20.463	1.00	15.89	B	N
ATOM	8375	CA	MET	325	117.104	51.243	20.914	1.00	16.61	B	C
ATOM	8376	CB	MET	325	118.053	50.997	22.083	1.00	17.97	B	C
ATOM	8377	CG	MET	325	118.682	52.280	22.597	1.00	19.56	B	C
ATOM	8378	SD	MET	325	119.851	52.014	23.915	1.00	22.61	B	S

(Continued)

FIG. 4-172

ATOM	8379	CE	MET	325	118.765	51.442	25.211	1.00	21.39	B	C
ATOM	8380	C	MET	325	117.895	51.875	19.782	1.00	17.82	B	C
ATOM	8381	O	MET	325	118.658	51.198	19.082	1.00	15.28	B	O
ATOM	8382	N	ASP	326	117.698	53.175	19.607	1.00	18.85	B	N
ATOM	8383	CA	ASP	326	118.409	53.922	18.591	1.00	21.89	B	C
ATOM	8384	CB	ASP	326	117.436	54.685	17.695	1.00	22.04	B	C
ATOM	8385	CG	ASP	326	117.533	54.272	16.244	1.00	23.15	B	C
ATOM	8386	OD1	ASP	326	116.800	54.855	15.418	1.00	25.35	B	O
ATOM	8387	OD2	ASP	326	118.334	53.366	15.922	1.00	23.67	B	O
ATOM	8388	C	ASP	326	119.299	54.904	19.327	1.00	24.54	B	C
ATOM	8389	O	ASP	326	118.896	55.494	20.335	1.00	25.63	B	O
ATOM	8390	N	ILE	327	120.521	55.062	18.842	1.00	25.49	B	N
ATOM	8391	CA	ILE	327	121.451	55.986	19.459	1.00	27.44	B	C
ATOM	8392	CB	ILE	327	122.713	55.263	19.936	1.00	27.10	B	C
ATOM	8393	CG2	ILE	327	123.697	56.264	20.515	1.00	27.85	B	C
ATOM	8394	CG1	ILE	327	122.321	54.221	20.984	1.00	25.49	B	C
ATOM	8395	CD1	ILE	327	123.476	53.506	21.594	1.00	27.60	B	C
ATOM	8396	C	ILE	327	121.784	57.005	18.395	1.00	29.15	B	C
ATOM	8397	O	ILE	327	122.357	56.673	17.357	1.00	31.19	B	O
ATOM	8398	N	CYS	328	121.414	58.250	18.653	1.00	30.14	B	N
ATOM	8399	CA	CYS	328	121.624	59.298	17.684	1.00	31.56	B	C
ATOM	8400	C	CYS	328	122.624	60.356	18.084	1.00	32.64	B	C
ATOM	8401	O	CYS	328	122.525	60.972	19.153	1.00	33.03	B	O
ATOM	8402	CB	CYS	328	120.286	59.938	17.366	1.00	32.73	B	C
ATOM	8403	SG	CYS	328	118.979	58.689	17.154	1.00	36.31	B	S
ATOM	8404	N	ASP	329	123.596	60.555	17.200	1.00	32.72	B	N
ATOM	8405	CA	ASP	329	124.639	61.542	17.406	1.00	32.74	B	C
ATOM	8406	CB	ASP	329	125.997	60.975	16.981	1.00	34.70	B	C
ATOM	8407	CG	ASP	329	126.480	59.858	17.894	1.00	36.73	B	C
ATOM	8408	OD1	ASP	329	127.643	59.431	17.735	1.00	38.23	B	O
ATOM	8409	OD2	ASP	329	125.706	59.405	18.767	1.00	36.00	B	O
ATOM	8410	C	ASP	329	124.320	62.781	16.588	1.00	31.70	B	C
ATOM	8411	O	ASP	329	123.767	62.692	15.494	1.00	30.70	B	O
ATOM	8412	N	TYR	330	124.662	63.940	17.129	1.00	31.69	B	N
ATOM	8413	CA	TYR	330	124.420	65.191	16.428	1.00	33.40	B	C
ATOM	8414	CB	TYR	330	124.376	66.354	17.411	1.00	30.81	B	C
ATOM	8415	CG	TYR	330	124.322	67.693	16.728	1.00	29.75	B	C
ATOM	8416	CD1	TYR	330	123.185	68.089	16.030	1.00	30.07	B	C
ATOM	8417	CE1	TYR	330	123.121	69.326	15.399	1.00	30.94	B	C
ATOM	8418	CD2	TYR	330	125.407	68.568	16.777	1.00	30.62	B	C
ATOM	8419	CE2	TYR	330	125.356	69.814	16.150	1.00	30.16	B	C
ATOM	8420	CZ	TYR	330	124.206	70.186	15.465	1.00	31.10	B	C
ATOM	8421	OH	TYR	330	124.122	71.422	14.867	1.00	29.92	B	O
ATOM	8422	C	TYR	330	125.523	65.462	15.412	1.00	35.09	B	C
ATOM	8423	O	TYR	330	126.692	65.552	15.772	1.00	36.29	B	O
ATOM	8424	N	ASP	331	125.149	65.600	14.146	1.00	37.07	B	N
ATOM	8425	CA	ASP	331	126.123	65.886	13.106	1.00	39.50	B	C
ATOM	8426	CB	ASP	331	125.611	65.391	11.756	1.00	39.77	B	C
ATOM	8427	CG	ASP	331	126.665	65.464	10.677	1.00	40.31	B	C

(Continued)

FIG. 4-173

ATOM	8428	OD1	ASP	331	126.387	65.018	9.543	1.00	41.37	B	O
ATOM	8429	OD2	ASP	331	127.770	65.966	10.967	1.00	40.07	B	O
ATOM	8430	C	ASP	331	126.355	67.395	13.062	1.00	41.15	B	C
ATOM	8431	O	ASP	331	125.641	68.126	12.380	1.00	40.39	B	O
ATOM	8432	N	GLU	332	127.358	67.852	13.802	1.00	44.16	B	N
ATOM	8433	CA	GLU	332	127.690	69.271	13.879	1.00	47.17	B	C
ATOM	8434	CB	GLU	332	129.001	69.457	14.646	1.00	48.80	B	C
ATOM	8435	CG	GLU	332	129.367	70.901	14.922	1.00	51.70	B	C
ATOM	8436	CD	GLU	332	130.451	71.028	15.979	1.00	54.56	B	C
ATOM	8437	OE1	GLU	332	130.203	70.623	17.136	1.00	55.51	B	O
ATOM	8438	OE2	GLU	332	131.552	71.528	15.658	1.00	56.11	B	O
ATOM	8439	C	GLU	332	127.791	69.941	12.517	1.00	47.83	B	C
ATOM	8440	O	GLU	332	127.518	71.130	12.383	1.00	48.20	B	O
ATOM	8441	N	SER	333	128.179	69.175	11.505	1.00	48.69	B	N
ATOM	8442	CA	SER	333	128.312	69.715	10.161	1.00	49.93	B	C
ATOM	8443	CB	SER	333	129.246	68.835	9.327	1.00	50.95	B	C
ATOM	8444	OG	SER	333	130.521	68.723	9.943	1.00	54.48	B	O
ATOM	8445	C	SER	333	126.957	69.809	9.483	1.00	49.97	B	C
ATOM	8446	O	SER	333	126.514	70.893	9.108	1.00	50.95	B	O
ATOM	8447	N	SER	334	126.302	68.665	9.326	1.00	50.21	B	N
ATOM	8448	CA	SER	334	124.993	68.609	8.687	1.00	49.04	B	C
ATOM	8449	CB	SER	334	124.582	67.154	8.451	1.00	50.46	B	C
ATOM	8450	OG	SER	334	123.275	67.076	7.905	1.00	52.36	B	O
ATOM	8451	C	SER	334	123.934	69.288	9.536	1.00	47.42	B	C
ATOM	8452	O	SER	334	122.917	69.742	9.021	1.00	48.45	B	O
ATOM	8453	N	GLY	335	124.177	69.353	10.840	1.00	45.55	B	N
ATOM	8454	CA	GLY	335	123.219	69.965	11.738	1.00	42.54	B	C
ATOM	8455	C	GLY	335	122.081	69.007	12.033	1.00	40.97	B	C
ATOM	8456	O	GLY	335	121.179	69.318	12.807	1.00	40.87	B	O
ATOM	8457	N	ARG	336	122.117	67.834	11.409	1.00	38.61	B	N
ATOM	8458	CA	ARG	336	121.076	66.843	11.622	1.00	37.65	B	C
ATOM	8459	CB	ARG	336	120.725	66.143	10.306	1.00	39.07	B	C
ATOM	8460	CG	ARG	336	120.460	67.099	9.151	1.00	41.95	B	C
ATOM	8461	CD	ARG	336	119.339	66.597	8.248	1.00	45.61	B	C
ATOM	8462	NE	ARG	336	118.019	67.002	8.729	1.00	48.18	B	N
ATOM	8463	CZ	ARG	336	117.522	68.233	8.613	1.00	49.86	B	C
ATOM	8464	NH1	ARG	336	118.229	69.194	8.025	1.00	50.51	B	N
ATOM	8465	NH2	ARG	336	116.317	68.510	9.094	1.00	50.56	B	N
ATOM	8466	C	ARG	336	121.524	65.817	12.654	1.00	35.64	B	C
ATOM	8467	O	ARG	336	122.629	65.900	13.181	1.00	35.91	B	O
ATOM	8468	N	TRP	337	120.649	64.865	12.955	1.00	33.09	B	N
ATOM	8469	CA	TRP	337	120.955	63.818	13.918	1.00	30.08	B	C
ATOM	8470	CB	TRP	337	119.922	63.793	15.053	1.00	24.67	B	C
ATOM	8471	CG	TRP	337	119.993	64.979	15.954	1.00	20.03	B	C
ATOM	8472	CD2	TRP	337	120.670	65.059	17.214	1.00	17.75	B	C
ATOM	8473	CE2	TRP	337	120.550	66.390	17.671	1.00	17.16	B	C
ATOM	8474	CE3	TRP	337	121.374	64.137	17.997	1.00	15.36	B	C
ATOM	8475	CD1	TRP	337	119.498	66.224	15.709	1.00	19.73	B	C
ATOM	8476	NE1	TRP	337	119.827	67.079	16.736	1.00	18.61	B	N

(Continued)

FIG. 4-174

ATOM	8477	CZ2	TRP	337	121.110	66.825	18.875	1.00	18.08	B C
ATOM	8478	CZ3	TRP	337	121.932	64.567	19.196	1.00	15.24	B C
ATOM	8479	CH2	TRP	337	121.798	65.900	19.622	1.00	16.71	B C
ATOM	8480	C	TRP	337	120.940	62.487	13.188	1.00	31.57	B C
ATOM	8481	O	TRP	337	119.983	62.167	12.482	1.00	33.23	B O
ATOM	8482	N	ASN	338	122.003	61.712	13.347	1.00	32.12	B N
ATOM	8483	CA	ASN	338	122.079	60.426	12.691	1.00	33.02	B C
ATOM	8484	CB	ASN	338	123.240	60.416	11.698	1.00	34.88	B C
ATOM	8485	CG	ASN	338	122.957	61.271	10.471	1.00	38.68	B C
ATOM	8486	OD1	ASN	338	123.595	62.306	10.251	1.00	39.82	B O
ATOM	8487	ND2	ASN	338	121.984	60.845	9.669	1.00	38.06	B N
ATOM	8488	C	ASN	338	122.216	59.294	13.693	1.00	33.48	B C
ATOM	8489	O	ASN	338	123.009	59.364	14.631	1.00	33.12	B O
ATOM	8490	N	CYS	339	121.419	58.251	13.499	1.00	33.60	B N
ATOM	8491	CA	CYS	339	121.459	57.104	14.385	1.00	34.06	B C
ATOM	8492	C	CYS	339	121.924	55.913	13.564	1.00	33.56	B C
ATOM	8493	O	CYS	339	121.135	55.296	12.848	1.00	34.05	B O
ATOM	8494	CB	CYS	339	120.071	56.829	14.961	1.00	34.96	B C
ATOM	8495	SG	CYS	339	118.997	58.291	15.160	1.00	37.83	B S
ATOM	8496	N	LEU	340	123.211	55.604	13.665	1.00	32.80	B N
ATOM	8497	CA	LEU	340	123.798	54.491	12.933	1.00	33.83	B C
ATOM	8498	CB	LEU	340	125.303	54.413	13.218	1.00	34.61	B C
ATOM	8499	CG	LEU	340	126.163	55.530	12.609	1.00	34.61	B C
ATOM	8500	CD1	LEU	340	127.500	55.633	13.322	1.00	31.70	B C
ATOM	8501	CD2	LEU	340	126.352	55.257	11.132	1.00	33.80	B C
ATOM	8502	C	LEU	340	123.152	53.151	13.259	1.00	34.95	B C
ATOM	8503	O	LEU	340	123.061	52.752	14.418	1.00	34.65	B O
ATOM	8504	N	VAL	341	122.706	52.457	12.220	1.00	35.87	B N
ATOM	8505	CA	VAL	341	122.093	51.152	12.387	1.00	36.37	B C
ATOM	8506	CB	VAL	341	121.981	50.423	11.047	1.00	36.86	B C
ATOM	8507	CG1	VAL	341	121.012	49.256	11.175	1.00	37.20	B C
ATOM	8508	CG2	VAL	341	121.532	51.391	9.968	1.00	38.15	B C
ATOM	8509	C	VAL	341	122.957	50.305	13.314	1.00	36.74	B C
ATOM	8510	O	VAL	341	122.511	49.872	14.366	1.00	39.77	B O
ATOM	8511	N	ALA	342	124.200	50.073	12.913	1.00	35.94	B N
ATOM	8512	CA	ALA	342	125.134	49.283	13.704	1.00	34.75	B C
ATOM	8513	CB	ALA	342	126.546	49.482	13.178	1.00	34.41	B C
ATOM	8514	C	ALA	342	125.095	49.609	15.194	1.00	34.74	B C
ATOM	8515	O	ALA	342	125.698	48.897	16.001	1.00	36.76	B O
ATOM	8516	N	ARG	343	124.411	50.688	15.561	1.00	32.52	B N
ATOM	8517	CA	ARG	343	124.303	51.074	16.961	1.00	30.81	B C
ATOM	8518	CB	ARG	343	124.611	52.562	17.120	1.00	32.62	B C
ATOM	8519	CG	ARG	343	126.063	52.922	16.844	1.00	34.14	B C
ATOM	8520	CD	ARG	343	126.345	54.396	17.131	1.00	33.56	B C
ATOM	8521	NE	ARG	343	127.775	54.692	17.108	1.00	33.70	B N
ATOM	8522	CZ	ARG	343	128.301	55.885	17.374	1.00	34.14	B C
ATOM	8523	NH1	ARG	343	127.516	56.907	17.680	1.00	33.88	B N
ATOM	8524	NH2	ARG	343	129.615	56.052	17.352	1.00	33.78	B N
ATOM	8525	C	ARG	343	122.919	50.751	17.535	1.00	29.28	B C

(Continued)

FIG. 4-175

ATOM	8526	O	ARG	343	122.586	51.143	18.650	1.00 28.30	B	O
ATOM	8527	N	GLN	344	122.121	50.026	16.763	1.00 28.05	B	N
ATOM	8528	CA	GLN	344	120.786	49.625	17.183	1.00 28.26	B	C
ATOM	8529	CB	GLN	344	119.944	49.238	15.974	1.00 26.68	B	C
ATOM	8530	CG	GLN	344	118.980	50.296	15.516	1.00 30.39	B	C
ATOM	8531	CD	GLN	344	118.091	49.802	14.399	1.00 31.50	B	C
ATOM	8532	OE1	GLN	344	117.567	48.685	14.457	1.00 31.52	B	O
ATOM	8533	NE2	GLN	344	117.905	50.632	13.378	1.00 32.84	B	N
ATOM	8534	C	GLN	344	120.853	48.431	18.121	1.00 28.55	B	C
ATOM	8535	O	GLN	344	121.655	47.515	17.919	1.00 28.32	B	O
ATOM	8536	N	HIS	345	120.008	48.436	19.145	1.00 28.34	B	N
ATOM	8537	CA	HIS	345	119.977	47.329	20.085	1.00 28.01	B	C
ATOM	8538	CB	HIS	345	120.514	47.753	21.452	1.00 28.88	B	C
ATOM	8539	CG	HIS	345	121.973	48.079	21.443	1.00 27.88	B	C
ATOM	8540	CD2	HIS	345	123.062	47.279	21.516	1.00 26.67	B	C
ATOM	8541	ND1	HIS	345	122.449	49.361	21.270	1.00 28.37	B	N
ATOM	8542	CE1	HIS	345	123.769	49.337	21.234	1.00 28.14	B	C
ATOM	8543	NE2	HIS	345	124.166	48.086	21.381	1.00 28.63	B	N
ATOM	8544	C	HIS	345	118.568	46.799	20.215	1.00 27.76	B	C
ATOM	8545	O	HIS	345	117.659	47.508	20.625	1.00 30.01	B	O
ATOM	8546	N	ILE	346	118.396	45.538	19.849	1.00 26.83	B	N
ATOM	8547	CA	ILE	346	117.102	44.897	19.899	1.00 25.72	B	C
ATOM	8548	CB	ILE	346	116.977	43.842	18.791	1.00 25.56	B	C
ATOM	8549	CG2	ILE	346	115.655	43.114	18.919	1.00 26.17	B	C
ATOM	8550	CG1	ILE	346	117.102	44.517	17.422	1.00 26.62	B	C
ATOM	8551	CD1	ILE	346	117.180	43.544	16.263	1.00 26.42	B	C
ATOM	8552	C	ILE	346	116.854	44.218	21.228	1.00 26.11	B	C
ATOM	8553	O	ILE	346	117.736	43.558	21.776	1.00 25.75	B	O
ATOM	8554	N	GLU	347	115.645	44.396	21.746	1.00 26.23	B	N
ATOM	8555	CA	GLU	347	115.260	43.767	22.994	1.00 25.82	B	C
ATOM	8556	CB	GLU	347	115.226	44.777	24.134	1.00 25.51	B	C
ATOM	8557	CG	GLU	347	115.282	44.118	25.505	1.00 28.20	B	C
ATOM	8558	CD	GLU	347	115.107	45.094	26.652	1.00 29.16	B	C
ATOM	8559	OE1	GLU	347	115.667	46.208	26.592	1.00 29.18	B	O
ATOM	8560	OE2	GLU	347	114.415	44.736	27.628	1.00 32.76	B	O
ATOM	8561	C	GLU	347	113.873	43.172	22.799	1.00 26.44	B	C
ATOM	8562	O	GLU	347	112.919	43.889	22.495	1.00 26.00	B	O
ATOM	8563	N	MET	348	113.770	41.858	22.957	1.00 26.58	B	N
ATOM	8564	CA	MET	348	112.492	41.181	22.807	1.00 27.90	B	C
ATOM	8565	CB	MET	348	112.270	40.767	21.345	1.00 30.41	B	C
ATOM	8566	CG	MET	348	113.466	40.132	20.660	1.00 34.65	B	C
ATOM	8567	SD	MET	348	113.695	38.420	21.117	1.00 42.21	B	S
ATOM	8568	CE	MET	348	112.733	37.597	19.804	1.00 38.96	B	C
ATOM	8569	C	MET	348	112.371	39.980	23.732	1.00 26.60	B	C
ATOM	8570	O	MET	348	113.363	39.472	24.247	1.00 26.08	B	O
ATOM	8571	N	SER	349	111.135	39.549	23.950	1.00 23.99	B	N
ATOM	8572	CA	SER	349	110.843	38.423	24.812	1.00 21.78	B	C
ATOM	8573	CB	SER	349	109.989	38.894	25.997	1.00 20.79	B	C
ATOM	8574	OG	SER	349	109.402	37.809	26.700	1.00 21.42	B	O

(Continued)

FIG. 4-176

ATOM	8575	C	SER	349	110.084	37.387	24.005	1.00	21.88	B	C
ATOM	8576	O	SER	349	109.274	37.739	23.154	1.00	23.74	B	O
ATOM	8577	N	THR	350	110.351	36.112	24.264	1.00	21.76	B	N
ATOM	8578	CA	THR	350	109.654	35.033	23.571	1.00	23.08	B	C
ATOM	8579	CB	THR	350	110.603	33.882	23.214	1.00	22.77	B	C
ATOM	8580	OG1	THR	350	111.310	33.483	24.391	1.00	25.37	B	O
ATOM	8581	CG2	THR	350	111.583	34.299	22.152	1.00	22.93	B	C
ATOM	8582	C	THR	350	108.561	34.453	24.475	1.00	22.93	B	C
ATOM	8583	O	THR	350	107.732	33.650	24.035	1.00	20.70	B	O
ATOM	8584	N	THR	351	108.564	34.871	25.737	1.00	22.30	B	N
ATOM	8585	CA	THR	351	107.601	34.366	26.703	1.00	22.35	B	C
ATOM	8586	CB	THR	351	108.332	33.796	27.932	1.00	23.36	B	C
ATOM	8587	OG1	THR	351	108.989	34.859	28.635	1.00	25.67	B	O
ATOM	8588	CG2	THR	351	109.378	32.781	27.493	1.00	22.26	B	C
ATOM	8589	C	THR	351	106.575	35.392	27.171	1.00	21.07	B	C
ATOM	8590	O	THR	351	105.562	35.031	27.760	1.00	20.87	B	O
ATOM	8591	N	GLY	352	106.839	36.668	26.918	1.00	19.83	B	N
ATOM	8592	CA	GLY	352	105.894	37.692	27.325	1.00	19.36	B	C
ATOM	8593	C	GLY	352	106.182	39.027	26.672	1.00	18.63	B	C
ATOM	8594	O	GLY	352	106.633	39.076	25.531	1.00	20.78	B	O
ATOM	8595	N	TRP	353	105.913	40.109	27.397	1.00	17.51	B	N
ATOM	8596	CA	TRP	353	106.156	41.464	26.907	1.00	15.30	B	C
ATOM	8597	CB	TRP	353	105.195	42.451	27.587	1.00	13.08	B	C
ATOM	8598	CG	TRP	353	105.165	42.366	29.084	1.00	9.17	B	C
ATOM	8599	CD2	TRP	353	104.479	41.387	29.877	1.00	7.79	B	C
ATOM	8600	CE2	TRP	353	104.739	41.684	31.233	1.00	8.17	B	C
ATOM	8601	CE3	TRP	353	103.671	40.288	29.574	1.00	10.72	B	C
ATOM	8602	CD1	TRP	353	105.798	43.195	29.966	1.00	11.19	B	C
ATOM	8603	NE1	TRP	353	105.546	42.791	31.265	1.00	10.10	B	N
ATOM	8604	CZ2	TRP	353	104.217	40.921	32.281	1.00	10.66	B	C
ATOM	8605	CZ3	TRP	353	103.149	39.524	30.625	1.00	10.40	B	C
ATOM	8606	CH2	TRP	353	103.426	39.848	31.958	1.00	9.81	B	C
ATOM	8607	C	TRP	353	107.594	41.796	27.264	1.00	15.80	B	C
ATOM	8608	O	TRP	353	108.247	40.999	27.931	1.00	16.59	B	O
ATOM	8609	N	VAL	354	108.092	42.946	26.819	1.00	13.84	B	N
ATOM	8610	CA	VAL	354	109.464	43.338	27.140	1.00	13.65	B	C
ATOM	8611	CB	VAL	354	110.135	44.096	25.960	1.00	16.06	B	C
ATOM	8612	CG1	VAL	354	111.506	44.646	26.400	1.00	12.56	B	C
ATOM	8613	CG2	VAL	354	110.284	43.163	24.751	1.00	12.49	B	C
ATOM	8614	C	VAL	354	109.486	44.248	28.368	1.00	13.83	B	C
ATOM	8615	O	VAL	354	108.716	45.197	28.456	1.00	13.93	B	O
ATOM	8616	N	GLY	355	110.373	43.957	29.313	1.00	14.87	B	N
ATOM	8617	CA	GLY	355	110.467	44.769	30.519	1.00	16.09	B	C
ATOM	8618	C	GLY	355	109.333	44.554	31.513	1.00	16.34	B	C
ATOM	8619	O	GLY	355	108.347	43.877	31.206	1.00	18.25	B	O
ATOM	8620	N	ARG	356	109.456	45.126	32.706	1.00	15.16	B	N
ATOM	8621	CA	ARG	356	108.404	44.953	33.701	1.00	16.32	B	C
ATOM	8622	CB	ARG	356	108.856	45.494	35.066	1.00	14.18	B	C
ATOM	8623	CG	ARG	356	110.001	44.668	35.667	1.00	13.44	B	C

(Continued)

FIG. 4-177

ATOM	8624	CD	ARG	356	110.169	44.878	37.151	1.00	14.42	B	C
ATOM	8625	NE	ARG	356	111.546	45.211	37.511	1.00	18.65	B	N
ATOM	8626	CZ	ARG	356	112.457	44.341	37.935	1.00	20.17	B	C
ATOM	8627	NH1	ARG	356	112.156	43.055	38.065	1.00	22.71	B	N
ATOM	8628	NH2	ARG	356	113.674	44.765	38.242	1.00	18.93	B	N
ATOM	8629	C	ARG	356	107.111	45.607	33.209	1.00	16.01	B	C
ATOM	8630	O	ARG	356	106.100	44.924	33.066	1.00	16.29	B	O
ATOM	8631	N	PHE	357	107.140	46.911	32.945	1.00	15.89	B	N
ATOM	8632	CA	PHE	357	105.967	47.603	32.402	1.00	16.40	B	C
ATOM	8633	CB	PHE	357	105.418	48.660	33.366	1.00	11.21	B	C
ATOM	8634	CG	PHE	357	104.753	48.083	34.573	1.00	8.48	B	C
ATOM	8635	CD1	PHE	357	105.467	47.878	35.748	1.00	5.58	B	C
ATOM	8636	CD2	PHE	357	103.407	47.711	34.531	1.00	8.57	B	C
ATOM	8637	CE1	PHE	357	104.846	47.309	36.867	1.00	5.98	B	C
ATOM	8638	CE2	PHE	357	102.777	47.136	35.648	1.00	4.59	B	C
ATOM	8639	CZ	PHE	357	103.498	46.937	36.812	1.00	3.60	B	C
ATOM	8640	C	PHE	357	106.344	48.259	31.076	1.00	18.69	B	C
ATOM	8641	O	PHE	357	105.476	48.638	30.287	1.00	21.57	B	O
ATOM	8642	N	ARG	358	107.648	48.377	30.840	1.00	19.12	B	N
ATOM	8643	CA	ARG	358	108.188	48.953	29.612	1.00	19.47	B	C
ATOM	8644	CB	ARG	358	107.826	50.439	29.499	1.00	19.02	B	C
ATOM	8645	CG	ARG	358	108.451	51.346	30.559	1.00	19.99	B	C
ATOM	8646	CD	ARG	358	108.074	52.820	30.338	1.00	22.48	B	C
ATOM	8647	NE	ARG	358	108.633	53.708	31.362	1.00	24.20	B	N
ATOM	8648	CZ	ARG	358	109.204	54.890	31.117	1.00	24.69	B	C
ATOM	8649	NH1	ARG	358	109.304	55.358	29.875	1.00	21.14	B	N
ATOM	8650	NH2	ARG	358	109.696	55.603	32.121	1.00	24.33	B	N
ATOM	8651	C	ARG	358	109.707	48.784	29.646	1.00	20.57	B	C
ATOM	8652	O	ARG	358	110.302	48.704	30.722	1.00	22.16	B	O
ATOM	8653	N	PRO	359	110.355	48.723	28.473	1.00	20.23	B	N
ATOM	8654	CD	PRO	359	109.783	48.894	27.124	1.00	20.61	B	C
ATOM	8655	CA	PRO	359	111.816	48.564	28.411	1.00	20.48	B	C
ATOM	8656	CB	PRO	359	112.137	48.916	26.959	1.00	19.85	B	C
ATOM	8657	CG	PRO	359	110.919	48.431	26.229	1.00	21.21	B	C
ATOM	8658	C	PRO	359	112.527	49.494	29.402	1.00	20.23	B	C
ATOM	8659	O	PRO	359	112.221	50.683	29.465	1.00	22.01	B	O
ATOM	8660	N	SER	360	113.474	48.953	30.163	1.00	19.33	B	N
ATOM	8661	CA	SER	360	114.212	49.725	31.160	1.00	18.75	B	C
ATOM	8662	CB	SER	360	115.122	48.806	31.968	1.00	20.74	B	C
ATOM	8663	OG	SER	360	116.163	48.286	31.149	1.00	26.03	B	O
ATOM	8664	C	SER	360	115.060	50.841	30.560	1.00	18.77	B	C
ATOM	8665	O	SER	360	115.410	50.806	29.382	1.00	17.99	B	O
ATOM	8666	N	GLU	361	115.394	51.824	31.393	1.00	18.96	B	N
ATOM	8667	CA	GLU	361	116.199	52.970	30.978	1.00	18.11	B	C
ATOM	8668	CB	GLU	361	115.982	54.159	31.919	1.00	16.34	B	C
ATOM	8669	CG	GLU	361	116.654	54.007	33.269	1.00	21.67	B	C
ATOM	8670	CD	GLU	361	115.743	53.431	34.342	1.00	27.42	B	C
ATOM	8671	OE1	GLU	361	115.067	52.408	34.091	1.00	28.62	B	O
ATOM	8672	OE2	GLU	361	115.710	54.009	35.453	1.00	31.11	B	O

(Continued)

FIG. 4-178

ATOM	8673	C	GLU	361	117.674	52.595	31.007	1.00	16.97	B C
ATOM	8674	O	GLU	361	118.118	51.870	31.888	1.00	16.23	B O
ATOM	8675	N	PRO	362	118.449	53.079	30.030	1.00	16.09	B N
ATOM	8676	CD	PRO	362	118.027	53.805	28.817	1.00	13.66	B C
ATOM	8677	CA	PRO	362	119.879	52.772	29.985	1.00	15.32	B C
ATOM	8678	CB	PRO	362	120.207	52.916	28.505	1.00	13.19	B C
ATOM	8679	CG	PRO	362	119.362	54.086	28.121	1.00	12.78	B C
ATOM	8680	C	PRO	362	120.601	53.806	30.832	1.00	16.34	B C
ATOM	8681	O	PRO	362	120.096	54.911	31.021	1.00	17.05	B O
ATOM	8682	N	HIS	363	121.768	53.448	31.353	1.00	17.21	B N
ATOM	8683	CA	HIS	363	122.550	54.374	32.164	1.00	18.58	B C
ATOM	8684	CB	HIS	363	122.626	53.875	33.603	1.00	18.05	B C
ATOM	8685	CG	HIS	363	121.324	53.965	34.333	1.00	19.33	B C
ATOM	8686	CD2	HIS	363	120.156	53.301	34.158	1.00	19.36	B C
ATOM	8687	ND1	HIS	363	121.111	54.851	35.368	1.00	18.40	B N
ATOM	8688	CE1	HIS	363	119.869	54.731	35.799	1.00	19.50	B C
ATOM	8689	NE2	HIS	363	119.267	53.798	35.081	1.00	22.85	B N
ATOM	8690	C	HIS	363	123.942	54.499	31.551	1.00	19.40	B C
ATOM	8691	O	HIS	363	124.833	53.691	31.806	1.00	19.73	B O
ATOM	8692	N	PHE	364	124.110	55.520	30.723	1.00	19.14	B N
ATOM	8693	CA	PHE	364	125.371	55.744	30.043	1.00	19.25	B C
ATOM	8694	CB	PHE	364	125.188	56.802	28.944	1.00	17.71	B C
ATOM	8695	CG	PHE	364	124.368	56.319	27.777	1.00	15.99	B C
ATOM	8696	CD1	PHE	364	122.975	56.339	27.826	1.00	12.83	B C
ATOM	8697	CD2	PHE	364	124.989	55.770	26.656	1.00	12.86	B C
ATOM	8698	CE1	PHE	364	122.216	55.816	26.781	1.00	8.09	B C
ATOM	8699	CE2	PHE	364	124.225	55.242	25.607	1.00	10.87	B C
ATOM	8700	CZ	PHE	364	122.837	55.268	25.679	1.00	7.69	B C
ATOM	8701	C	PHE	364	126.531	56.127	30.942	1.00	18.72	B C
ATOM	8702	O	PHE	364	126.341	56.638	32.050	1.00	17.88	B O
ATOM	8703	N	THR	365	127.735	55.854	30.448	1.00	18.23	B N
ATOM	8704	CA	THR	365	128.967	56.178	31.159	1.00	19.73	B C
ATOM	8705	CB	THR	365	130.132	55.288	30.697	1.00	17.73	B C
ATOM	8706	OG1	THR	365	130.257	55.384	29.275	1.00	22.16	B O
ATOM	8707	CG2	THR	365	129.890	53.848	31.069	1.00	13.36	B C
ATOM	8708	C	THR	365	129.312	57.633	30.847	1.00	20.48	B C
ATOM	8709	O	THR	365	128.662	58.260	30.015	1.00	20.68	B O
ATOM	8710	N	LEU	366	130.329	58.163	31.515	1.00	22.60	B N
ATOM	8711	CA	LEU	366	130.740	59.544	31.304	1.00	25.75	B C
ATOM	8712	CB	LEU	366	132.053	59.831	32.039	1.00	29.32	B C
ATOM	8713	CG	LEU	366	132.172	59.429	33.516	1.00	34.01	B C
ATOM	8714	CD1	LEU	366	132.442	57.920	33.631	1.00	33.57	B C
ATOM	8715	CD2	LEU	366	133.316	60.210	34.162	1.00	34.78	B C
ATOM	8716	C	LEU	366	130.909	59.900	29.824	1.00	26.20	B C
ATOM	8717	O	LEU	366	130.317	60.871	29.349	1.00	26.53	B O
ATOM	8718	N	ASP	367	131.709	59.115	29.102	1.00	24.26	B N
ATOM	8719	CA	ASP	367	131.964	59.369	27.682	1.00	23.63	B C
ATOM	8720	CB	ASP	367	133.232	58.636	27.214	1.00	23.47	B C
ATOM	8721	CG	ASP	367	133.230	57.158	27.582	1.00	25.27	B C

(Continued)

FIG. 4-179

ATOM	8722	OD1	ASP	367	132.158	56.515	27.507	1.00	24.35	B	O
ATOM	8723	OD2	ASP	367	134.311	56.634	27.935	1.00	25.99	B	O
ATOM	8724	C	ASP	367	130.810	58.990	26.767	1.00	22.76	B	C
ATOM	8725	O	ASP	367	130.848	59.261	25.568	1.00	24.31	B	O
ATOM	8726	N	GLY	368	129.795	58.348	27.330	1.00	20.91	B	N
ATOM	8727	CA	GLY	368	128.646	57.950	26.547	1.00	18.80	B	C
ATOM	8728	C	GLY	368	128.912	56.843	25.550	1.00	19.81	B	C
ATOM	8729	O	GLY	368	128.059	56.563	24.700	1.00	19.55	B	O
ATOM	8730	N	ASN	369	130.073	56.198	25.643	1.00	19.20	B	N
ATOM	8731	CA	ASN	369	130.398	55.117	24.706	1.00	19.60	B	C
ATOM	8732	CB	ASN	369	131.907	54.986	24.526	1.00	19.65	B	C
ATOM	8733	CG	ASN	369	132.519	56.217	23.921	1.00	21.94	B	C
ATOM	8734	OD1	ASN	369	132.005	56.757	22.945	1.00	25.32	B	O
ATOM	8735	ND2	ASN	369	133.628	56.671	24.489	1.00	23.16	B	N
ATOM	8736	C	ASN	369	129.828	53.760	25.090	1.00	18.53	B	C
ATOM	8737	O	ASN	369	129.770	52.861	24.258	1.00	18.17	B	O
ATOM	8738	N	SER	370	129.420	53.608	26.346	1.00	18.61	B	N
ATOM	8739	CA	SER	370	128.847	52.347	26.812	1.00	19.50	B	C
ATOM	8740	CB	SER	370	129.934	51.447	27.430	1.00	20.45	B	C
ATOM	8741	OG	SER	370	130.577	52.057	28.538	1.00	22.81	B	O
ATOM	8742	C	SER	370	127.746	52.621	27.829	1.00	18.95	B	C
ATOM	8743	O	SER	370	127.562	53.759	28.261	1.00	19.22	B	O
ATOM	8744	N	PHE	371	127.009	51.583	28.209	1.00	18.63	B	N
ATOM	8745	CA	PHE	371	125.931	51.763	29.168	1.00	18.66	B	C
ATOM	8746	CB	PHE	371	124.762	52.516	28.512	1.00	19.79	B	C
ATOM	8747	CG	PHE	371	124.088	51.756	27.398	1.00	16.47	B	C
ATOM	8748	CD1	PHE	371	124.532	51.874	26.093	1.00	15.63	B	C
ATOM	8749	CD2	PHE	371	122.991	50.940	27.660	1.00	17.78	B	C
ATOM	8750	CE1	PHE	371	123.893	51.198	25.059	1.00	18.99	B	C
ATOM	8751	CE2	PHE	371	122.340	50.255	26.631	1.00	18.61	B	C
ATOM	8752	CZ	PHE	371	122.792	50.386	25.327	1.00	18.10	B	C
ATOM	8753	C	PHE	371	125.402	50.473	29.784	1.00	18.78	B	C
ATOM	8754	O	PHE	371	125.506	49.392	29.197	1.00	17.45	B	O
ATOM	8755	N	TYR	372	124.814	50.614	30.970	1.00	19.00	B	N
ATOM	8756	CA	TYR	372	124.240	49.491	31.703	1.00	18.59	B	C
ATOM	8757	CB	TYR	372	124.697	49.527	33.159	1.00	17.86	B	C
ATOM	8758	CG	TYR	372	126.199	49.500	33.290	1.00	17.83	B	C
ATOM	8759	CD1	TYR	372	126.951	50.676	33.201	1.00	19.52	B	C
ATOM	8760	CE1	TYR	372	128.339	50.651	33.257	1.00	18.29	B	C
ATOM	8761	CD2	TYR	372	126.878	48.296	33.441	1.00	17.45	B	C
ATOM	8762	CE2	TYR	372	128.266	48.257	33.498	1.00	18.99	B	C
ATOM	8763	CZ	TYR	372	128.991	49.434	33.405	1.00	18.83	B	C
ATOM	8764	OH	TYR	372	130.364	49.387	33.454	1.00	19.89	B	O
ATOM	8765	C	TYR	372	122.727	49.558	31.620	1.00	18.38	B	C
ATOM	8766	O	TYR	372	122.143	50.632	31.717	1.00	20.19	B	O
ATOM	8767	N	LYS	373	122.096	48.406	31.436	1.00	19.10	B	N
ATOM	8768	CA	LYS	373	120.647	48.340	31.299	1.00	18.51	B	C
ATOM	8769	CB	LYS	373	120.285	48.376	29.809	1.00	17.90	B	C
ATOM	8770	CG	LYS	373	118.809	48.581	29.485	1.00	21.01	B	C

(Continued)

FIG. 4-180

ATOM	8771	CD	LYS	373	118.593	48.627	27.969	1.00	21.40	B C
ATOM	8772	CE	LYS	373	117.248	49.238	27.563	1.00	21.67	B C
ATOM	8773	NZ	LYS	373	116.053	48.389	27.855	1.00	21.98	B N
ATOM	8774	C	LYS	373	120.128	47.049	31.928	1.00	18.77	B C
ATOM	8775	O	LYS	373	120.695	45.980	31.712	1.00	18.48	B O
ATOM	8776	N	ILE	374	119.056	47.150	32.709	1.00	17.06	B N
ATOM	8777	CA	ILE	374	118.474	45.972	33.332	1.00	15.88	B C
ATOM	8778	CB	ILE	374	117.557	46.339	34.526	1.00	14.58	B C
ATOM	8779	CG2	ILE	374	116.955	45.076	35.130	1.00	12.18	B C
ATOM	8780	CG1	ILE	374	118.348	47.101	35.591	1.00	15.07	B C
ATOM	8781	CD1	ILE	374	117.517	47.505	36.809	1.00	13.03	B C
ATOM	8782	C	ILE	374	117.618	45.244	32.303	1.00	16.94	B C
ATOM	8783	O	ILE	374	116.649	45.803	31.795	1.00	17.41	B O
ATOM	8784	N	ILE	375	117.977	44.008	31.978	1.00	18.50	B N
ATOM	8785	CA	ILE	375	117.178	43.226	31.033	1.00	19.71	B C
ATOM	8786	CB	ILE	375	117.842	43.117	29.625	1.00	19.62	B C
ATOM	8787	CG2	ILE	375	118.128	44.496	29.070	1.00	19.13	B C
ATOM	8788	CG1	ILE	375	119.128	42.298	29.706	1.00	21.23	B C
ATOM	8789	CD1	ILE	375	119.824	42.129	28.373	1.00	23.06	B C
ATOM	8790	C	ILE	375	116.984	41.815	31.579	1.00	20.44	B C
ATOM	8791	O	ILE	375	117.735	41.356	32.443	1.00	20.03	B O
ATOM	8792	N	SER	376	115.968	41.128	31.078	1.00	21.14	B N
ATOM	8793	CA	SER	376	115.705	39.771	31.516	1.00	21.95	B C
ATOM	8794	CB	SER	376	114.347	39.318	31.003	1.00	21.55	B C
ATOM	8795	OG	SER	376	114.026	38.054	31.539	1.00	25.40	B O
ATOM	8796	C	SER	376	116.808	38.899	30.936	1.00	23.06	B C
ATOM	8797	O	SER	376	117.236	39.127	29.807	1.00	24.16	B O
ATOM	8798	N	ASN	377	117.281	37.914	31.698	1.00	24.67	B N
ATOM	8799	CA	ASN	377	118.358	37.053	31.218	1.00	25.07	B C
ATOM	8800	CB	ASN	377	119.438	36.891	32.302	1.00	23.49	B C
ATOM	8801	CG	ASN	377	119.010	35.971	33.444	1.00	23.86	B C
ATOM	8802	OD1	ASN	377	117.951	35.340	33.397	1.00	23.70	B O
ATOM	8803	ND2	ASN	377	119.848	35.884	34.474	1.00	20.11	B N
ATOM	8804	C	ASN	377	117.897	35.681	30.736	1.00	26.79	B C
ATOM	8805	O	ASN	377	116.706	35.382	30.699	1.00	28.58	B O
ATOM	8806	N	GLU	378	118.861	34.856	30.353	1.00	29.97	B N
ATOM	8807	CA	GLU	378	118.608	33.504	29.871	1.00	33.15	B C
ATOM	8808	CB	GLU	378	119.914	32.716	29.870	1.00	37.08	B C
ATOM	8809	CG	GLU	378	120.695	32.870	31.181	1.00	43.78	B C
ATOM	8810	CD	GLU	378	121.681	31.740	31.427	1.00	46.56	B C
ATOM	8811	OE1	GLU	378	121.225	30.613	31.725	1.00	47.52	B O
ATOM	8812	OE2	GLU	378	122.906	31.981	31.321	1.00	47.91	B O
ATOM	8813	C	GLU	378	117.588	32.760	30.722	1.00	33.63	B C
ATOM	8814	O	GLU	378	116.685	32.113	30.192	1.00	35.16	B O
ATOM	8815	N	GLU	379	117.740	32.842	32.041	1.00	32.70	B N
ATOM	8816	CA	GLU	379	116.831	32.160	32.953	1.00	30.44	B C
ATOM	8817	CB	GLU	379	117.549	31.806	34.256	1.00	34.46	B C
ATOM	8818	CG	GLU	379	117.845	30.323	34.412	1.00	39.45	B C
ATOM	8819	CD	GLU	379	116.577	29.475	34.492	1.00	43.32	B C

(Continued)

FIG. 4-181

ATOM	8820	OE1	GLU	379	115.800	29.642	35.463	1.00	42.91	B	O
ATOM	8821	OE2	GLU	379	116.357	28.643	33.580	1.00	45.81	B	O
ATOM	8822	C	GLU	379	115.588	32.972	33.265	1.00	28.15	B	C
ATOM	8823	O	GLU	379	114.743	32.539	34.049	1.00	28.12	B	O
ATOM	8824	N	GLY	380	115.473	34.148	32.658	1.00	24.72	B	N
ATOM	8825	CA	GLY	380	114.304	34.980	32.886	1.00	22.38	B	C
ATOM	8826	C	GLY	380	114.335	35.891	34.101	1.00	21.23	B	C
ATOM	8827	O	GLY	380	113.302	36.404	34.514	1.00	21.76	B	O
ATOM	8828	N	TYR	381	115.507	36.084	34.689	1.00	20.24	B	N
ATOM	8829	CA	TYR	381	115.642	36.963	35.842	1.00	19.52	B	C
ATOM	8830	CB	TYR	381	116.539	36.307	36.884	1.00	20.98	B	C
ATOM	8831	CG	TYR	381	115.846	35.194	37.630	1.00	23.80	B	C
ATOM	8832	CD1	TYR	381	115.104	35.465	38.781	1.00	23.87	B	C
ATOM	8833	CE1	TYR	381	114.435	34.458	39.455	1.00	22.94	B	C
ATOM	8834	CD2	TYR	381	115.900	33.876	37.171	1.00	22.81	B	C
ATOM	8835	CE2	TYR	381	115.232	32.859	37.843	1.00	22.55	B	C
ATOM	8836	CZ	TYR	381	114.501	33.161	38.986	1.00	24.14	B	C
ATOM	8837	OH	TYR	381	113.830	32.170	39.667	1.00	25.04	B	O
ATOM	8838	C	TYR	381	116.237	38.292	35.374	1.00	19.14	B	C
ATOM	8839	O	TYR	381	117.178	38.312	34.568	1.00	18.95	B	O
ATOM	8840	N	ARG	382	115.689	39.399	35.871	1.00	15.40	B	N
ATOM	8841	CA	ARG	382	116.160	40.715	35.458	1.00	14.04	B	C
ATOM	8842	CB	ARG	382	115.035	41.738	35.622	1.00	13.48	B	C
ATOM	8843	CG	ARG	382	113.948	41.478	34.606	1.00	15.55	B	C
ATOM	8844	CD	ARG	382	112.581	42.001	34.993	1.00	17.88	B	C
ATOM	8845	NE	ARG	382	111.576	41.337	34.170	1.00	19.19	B	N
ATOM	8846	CZ	ARG	382	111.438	41.515	32.859	1.00	21.25	B	C
ATOM	8847	NH1	ARG	382	112.230	42.357	32.203	1.00	18.86	B	N
ATOM	8848	NH2	ARG	382	110.534	40.810	32.190	1.00	23.20	B	N
ATOM	8849	C	ARG	382	117.438	41.172	36.140	1.00	12.33	B	C
ATOM	8850	O	ARG	382	117.497	41.376	37.349	1.00	9.83	B	O
ATOM	8851	N	HIS	383	118.474	41.303	35.323	1.00	11.97	B	N
ATOM	8852	CA	HIS	383	119.778	41.711	35.789	1.00	12.81	B	C
ATOM	8853	CB	HIS	383	120.714	40.516	35.777	1.00	12.29	B	C
ATOM	8854	CG	HIS	383	120.377	39.496	36.813	1.00	13.83	B	C
ATOM	8855	CD2	HIS	383	119.726	38.313	36.721	1.00	12.69	B	C
ATOM	8856	ND1	HIS	383	120.670	39.675	38.148	1.00	13.84	B	N
ATOM	8857	CE1	HIS	383	120.212	38.643	38.834	1.00	16.23	B	C
ATOM	8858	NE2	HIS	383	119.635	37.803	37.993	1.00	14.04	B	N
ATOM	8859	C	HIS	383	120.351	42.830	34.949	1.00	14.10	B	C
ATOM	8860	O	HIS	383	119.788	43.207	33.913	1.00	15.53	B	O
ATOM	8861	N	ILE	384	121.476	43.354	35.412	1.00	13.75	B	N
ATOM	8862	CA	ILE	384	122.166	44.444	34.749	1.00	15.78	B	C
ATOM	8863	CB	ILE	384	122.996	45.223	35.782	1.00	14.50	B	C
ATOM	8864	CG2	ILE	384	123.765	46.338	35.103	1.00	14.15	B	C
ATOM	8865	CG1	ILE	384	122.071	45.767	36.871	1.00	12.97	B	C
ATOM	8866	CD1	ILE	384	122.791	46.194	38.129	1.00	14.46	B	C
ATOM	8867	C	ILE	384	123.082	43.925	33.645	1.00	18.38	B	C
ATOM	8868	O	ILE	384	123.884	43.014	33.874	1.00	20.02	B	O

(Continued)

FIG. 4-182

ATOM	8869	N	CYS	385	122.956	44.485	32.446	1.00 19.06	B	N
ATOM	8870	CA	CYS	385	123.812	44.063	31.340	1.00 20.78	B	C
ATOM	8871	C	CYS	385	124.628	45.266	30.868	1.00 19.29	B	C
ATOM	8872	O	CYS	385	124.115	46.376	30.775	1.00 19.30	B	O
ATOM	8873	CB	CYS	385	122.980	43.476	30.178	1.00 22.83	B	C
ATOM	8874	SG	CYS	385	123.868	42.151	29.269	1.00 35.68	B	S
ATOM	8875	N	TYR	386	125.908	45.046	30.595	1.00 18.55	B	N
ATOM	8876	CA	TYR	386	126.795	46.111	30.138	1.00 17.80	B	C
ATOM	8877	CB	TYR	386	128.222	45.849	30.615	1.00 17.85	B	C
ATOM	8878	CG	TYR	386	129.224	46.938	30.295	1.00 17.08	B	C
ATOM	8879	CD1	TYR	386	130.557	46.620	30.049	1.00 18.50	B	C
ATOM	8880	CE1	TYR	386	131.504	47.602	29.797	1.00 20.09	B	C
ATOM	8881	CD2	TYR	386	128.857	48.276	30.279	1.00 17.91	B	C
ATOM	8882	CE2	TYR	386	129.798	49.274	30.032	1.00 21.21	B	C
ATOM	8883	CZ	TYR	386	131.127	48.925	29.791	1.00 21.94	B	C
ATOM	8884	OH	TYR	386	132.082	49.894	29.561	1.00 21.36	B	O
ATOM	8885	C	TYR	386	126.765	46.116	28.625	1.00 17.85	B	C
ATOM	8886	O	TYR	386	126.911	45.069	28.004	1.00 18.61	B	O
ATOM	8887	N	PHE	387	126.573	47.291	28.035	1.00 18.83	B	N
ATOM	8888	CA	PHE	387	126.520	47.418	26.587	1.00 18.83	B	C
ATOM	8889	CB	PHE	387	125.161	47.939	26.133	1.00 17.08	B	C
ATOM	8890	CG	PHE	387	124.014	47.000	26.347	1.00 14.86	B	C
ATOM	8891	CD1	PHE	387	123.409	46.373	25.258	1.00 14.70	B	C
ATOM	8892	CD2	PHE	387	123.444	46.848	27.605	1.00 12.48	B	C
ATOM	8893	CE1	PHE	387	122.246	45.624	25.419	1.00 13.25	B	C
ATOM	8894	CE2	PHE	387	122.283	46.100	27.777	1.00 11.47	B	C
ATOM	8895	CZ	PHE	387	121.680	45.491	26.684	1.00 12.33	B	C
ATOM	8896	C	PHE	387	127.552	48.408	26.057	1.00 21.93	B	C
ATOM	8897	O	PHE	387	127.859	49.413	26.706	1.00 20.79	B	O
ATOM	8898	N	GLN	388	128.057	48.113	24.859	1.00 24.26	B	N
ATOM	8899	CA	GLN	388	128.994	48.970	24.137	1.00 26.10	B	C
ATOM	8900	CB	GLN	388	130.122	48.140	23.534	1.00 26.78	B	C
ATOM	8901	CG	GLN	388	130.905	47.326	24.542	1.00 28.07	B	C
ATOM	8902	CD	GLN	388	131.787	48.185	25.401	1.00 27.71	B	C
ATOM	8903	OE1	GLN	388	132.672	48.871	24.898	1.00 30.29	B	O
ATOM	8904	NE2	GLN	388	131.553	48.160	26.705	1.00 30.63	B	N
ATOM	8905	C	GLN	388	128.074	49.474	23.024	1.00 28.20	B	C
ATOM	8906	O	GLN	388	127.300	48.690	22.478	1.00 28.61	B	O
ATOM	8907	N	ILE	389	128.130	50.755	22.681	1.00 30.33	B	N
ATOM	8908	CA	ILE	389	127.224	51.256	21.650	1.00 32.95	B	C
ATOM	8909	CB	ILE	389	127.233	52.796	21.576	1.00 29.60	B	C
ATOM	8910	CG2	ILE	389	126.839	53.374	22.933	1.00 27.56	B	C
ATOM	8911	CG1	ILE	389	128.606	53.296	21.129	1.00 27.72	B	C
ATOM	8912	CD1	ILE	389	128.699	54.810	21.005	1.00 26.00	B	C
ATOM	8913	C	ILE	389	127.489	50.692	20.261	1.00 37.72	B	C
ATOM	8914	O	ILE	389	126.605	50.705	19.404	1.00 40.02	B	O
ATOM	8915	N	ASP	390	128.696	50.184	20.039	1.00 41.52	B	N
ATOM	8916	CA	ASP	390	129.044	49.621	18.741	1.00 43.97	B	C
ATOM	8917	CB	ASP	390	130.478	50.005	18.365	1.00 45.79	B	C

(Continued)

FIG. 4-183

ATOM	8918	CG	ASP	390	130.576	51.416	17.816	1.00	49.16	B	C
ATOM	8919	OD1	ASP	390	129.879	51.713	16.819	1.00	50.13	B	O
ATOM	8920	OD2	ASP	390	131.349	52.227	18.372	1.00	50.30	B	O
ATOM	8921	C	ASP	390	128.887	48.106	18.675	1.00	44.93	B	C
ATOM	8922	O	ASP	390	128.589	47.557	17.619	1.00	47.19	B	O
ATOM	8923	N	LYS	391	129.081	47.427	19.798	1.00	45.32	B	N
ATOM	8924	CA	LYS	391	128.967	45.977	19.826	1.00	45.91	B	C
ATOM	8925	CB	LYS	391	129.981	45.409	20.818	1.00	47.86	B	C
ATOM	8926	CG	LYS	391	131.416	45.724	20.407	1.00	51.34	B	C
ATOM	8927	CD	LYS	391	132.428	45.397	21.494	1.00	55.03	B	C
ATOM	8928	CE	LYS	391	133.816	45.911	21.112	1.00	55.62	B	C
ATOM	8929	NZ	LYS	391	134.822	45.719	22.192	1.00	56.68	B	N
ATOM	8930	C	LYS	391	127.550	45.535	20.163	1.00	45.76	B	C
ATOM	8931	O	LYS	391	126.857	46.191	20.942	1.00	46.28	B	O
ATOM	8932	N	LYS	392	127.125	44.419	19.576	1.00	44.97	B	N
ATOM	8933	CA	LYS	392	125.772	43.916	19.782	1.00	45.02	B	C
ATOM	8934	CB	LYS	392	125.218	43.382	18.458	1.00	46.84	B	C
ATOM	8935	CG	LYS	392	124.750	44.494	17.529	1.00	49.00	B	C
ATOM	8936	CD	LYS	392	124.282	43.970	16.186	1.00	50.10	B	C
ATOM	8937	CE	LYS	392	123.533	45.057	15.436	1.00	51.49	B	C
ATOM	8938	NZ	LYS	392	124.298	46.338	15.419	1.00	52.49	B	N
ATOM	8939	C	LYS	392	125.529	42.895	20.886	1.00	43.84	B	C
ATOM	8940	O	LYS	392	124.386	42.512	21.134	1.00	44.15	B	O
ATOM	8941	N	ASP	393	126.579	42.446	21.555	1.00	41.92	B	N
ATOM	8942	CA	ASP	393	126.381	41.489	22.632	1.00	40.21	B	C
ATOM	8943	CB	ASP	393	127.289	40.268	22.470	1.00	41.22	B	C
ATOM	8944	CG	ASP	393	127.022	39.509	21.194	1.00	41.43	B	C
ATOM	8945	OD1	ASP	393	125.838	39.350	20.824	1.00	40.27	B	O
ATOM	8946	OD2	ASP	393	128.005	39.062	20.569	1.00	43.49	B	O
ATOM	8947	C	ASP	393	126.685	42.158	23.953	1.00	38.67	B	C
ATOM	8948	O	ASP	393	127.818	42.588	24.188	1.00	39.07	B	O
ATOM	8949	N	CYS	394	125.678	42.252	24.816	1.00	35.47	B	N
ATOM	8950	CA	CYS	394	125.882	42.870	26.117	1.00	32.02	B	C
ATOM	8951	C	CYS	394	126.374	41.796	27.069	1.00	29.62	B	C
ATOM	8952	O	CYS	394	126.248	40.608	26.787	1.00	29.41	B	O
ATOM	8953	CB	CYS	394	124.586	43.491	26.639	1.00	31.92	B	C
ATOM	8954	SG	CYS	394	123.354	42.328	27.301	1.00	33.67	B	S
ATOM	8955	N	THR	395	126.938	42.215	28.193	1.00	26.53	B	N
ATOM	8956	CA	THR	395	127.462	41.279	29.171	1.00	23.76	B	C
ATOM	8957	CB	THR	395	128.964	41.493	29.358	1.00	23.30	B	C
ATOM	8958	OG1	THR	395	129.627	41.265	28.115	1.00	25.56	B	O
ATOM	8959	CG2	THR	395	129.518	40.542	30.397	1.00	22.48	B	C
ATOM	8960	C	THR	395	126.784	41.448	30.519	1.00	22.20	B	C
ATOM	8961	O	THR	395	126.707	42.556	31.035	1.00	23.25	B	O
ATOM	8962	N	PHE	396	126.300	40.354	31.095	1.00	19.02	B	N
ATOM	8963	CA	PHE	396	125.658	40.444	32.396	1.00	18.94	B	C
ATOM	8964	CB	PHE	396	124.794	39.206	32.652	1.00	17.62	B	C
ATOM	8965	CG	PHE	396	123.486	39.225	31.918	1.00	19.32	B	C
ATOM	8966	CD1	PHE	396	122.477	40.112	32.290	1.00	20.73	B	C

(Continued)

FIG. 4-184

ATOM	8967	CD2	PHE	396	123.265	38.378	30.837	1.00	19.67	B	C
ATOM	8968	CE1	PHE	396	121.267	40.157	31.593	1.00	21.82	B	C
ATOM	8969	CE2	PHE	396	122.062	38.411	30.130	1.00	20.02	B	C
ATOM	8970	CZ	PHE	396	121.057	39.303	30.507	1.00	22.36	B	C
ATOM	8971	C	PHE	396	126.712	40.596	33.488	1.00	19.09	B	C
ATOM	8972	O	PHE	396	127.703	39.866	33.516	1.00	21.70	B	O
ATOM	8973	N	ILE	397	126.511	41.559	34.380	1.00	17.18	B	N
ATOM	8974	CA	ILE	397	127.454	41.774	35.460	1.00	14.91	B	C
ATOM	8975	CB	ILE	397	127.819	43.240	35.566	1.00	14.47	B	C
ATOM	8976	CG2	ILE	397	128.181	43.762	34.192	1.00	14.09	B	C
ATOM	8977	CG1	ILE	397	126.644	44.036	36.135	1.00	13.14	B	C
ATOM	8978	CD1	ILE	397	126.993	45.472	36.449	1.00	11.32	B	C
ATOM	8979	C	ILE	397	126.885	41.287	36.791	1.00	16.82	B	C
ATOM	8980	O	ILE	397	127.543	41.376	37.833	1.00	18.48	B	O
ATOM	8981	N	THR	398	125.651	40.790	36.753	1.00	15.47	B	N
ATOM	8982	CA	THR	398	125.000	40.241	37.937	1.00	14.86	B	C
ATOM	8983	CB	THR	398	124.049	41.255	38.652	1.00	14.72	B	C
ATOM	8984	OG1	THR	398	122.968	41.627	37.784	1.00	13.55	B	O
ATOM	8985	CG2	THR	398	124.812	42.476	39.083	1.00	13.88	B	C
ATOM	8986	C	THR	398	124.185	39.040	37.490	1.00	15.72	B	C
ATOM	8987	O	THR	398	123.805	38.942	36.323	1.00	15.48	B	O
ATOM	8988	N	LYS	399	123.915	38.127	38.416	1.00	17.12	B	N
ATOM	8989	CA	LYS	399	123.147	36.935	38.094	1.00	18.19	B	C
ATOM	8990	CB	LYS	399	124.026	35.960	37.314	1.00	20.96	B	C
ATOM	8991	CG	LYS	399	125.322	35.630	38.023	1.00	24.93	B	C
ATOM	8992	CD	LYS	399	125.970	34.380	37.458	1.00	29.93	B	C
ATOM	8993	CE	LYS	399	127.055	33.860	38.402	1.00	32.81	B	C
ATOM	8994	NZ	LYS	399	128.082	34.904	38.703	1.00	34.86	B	N
ATOM	8995	C	LYS	399	122.616	36.259	39.354	1.00	17.75	B	C
ATOM	8996	O	LYS	399	123.041	36.571	40.465	1.00	18.35	B	O
ATOM	8997	N	GLY	400	121.684	35.331	39.181	1.00	16.55	B	N
ATOM	8998	CA	GLY	400	121.131	34.640	40.327	1.00	17.62	B	C
ATOM	8999	C	GLY	400	119.616	34.629	40.320	1.00	19.66	B	C
ATOM	9000	O	GLY	400	118.979	35.360	39.551	1.00	22.36	B	O
ATOM	9001	N	THR	401	119.028	33.797	41.172	1.00	18.45	B	N
ATOM	9002	CA	THR	401	117.582	33.708	41.227	1.00	17.93	B	C
ATOM	9003	CB	THR	401	117.125	32.323	41.700	1.00	17.98	B	C
ATOM	9004	OG1	THR	401	117.653	32.056	43.004	1.00	20.05	B	O
ATOM	9005	CG2	THR	401	117.607	31.267	40.730	1.00	13.15	B	C
ATOM	9006	C	THR	401	117.013	34.785	42.125	1.00	16.85	B	C
ATOM	9007	O	THR	401	116.478	34.519	43.192	1.00	18.14	B	O
ATOM	9008	N	TRP	402	117.155	36.013	41.659	1.00	16.42	B	N
ATOM	9009	CA	TRP	402	116.671	37.199	42.335	1.00	14.66	B	C
ATOM	9010	CB	TRP	402	117.528	37.503	43.561	1.00	16.17	B	C
ATOM	9011	CG	TRP	402	119.001	37.502	43.296	1.00	16.85	B	C
ATOM	9012	CD2	TRP	402	119.793	38.614	42.861	1.00	17.78	B	C
ATOM	9013	CE2	TRP	402	121.131	38.164	42.771	1.00	18.27	B	C
ATOM	9014	CE3	TRP	402	119.504	39.948	42.542	1.00	18.13	B	C
ATOM	9015	CD1	TRP	402	119.859	36.453	43.440	1.00	16.20	B	C

(Continued)

FIG. 4-185

ATOM	9016	NE1	TRP	402	121.143	36.842	43.130	1.00	18.41	B	N
ATOM	9017	CZ2	TRP	402	122.180	39.003	42.378	1.00	16.56	B	C
ATOM	9018	CZ3	TRP	402	120.553	40.784	42.151	1.00	18.56	B	C
ATOM	9019	CH2	TRP	402	121.874	40.303	42.075	1.00	17.33	B	C
ATOM	9020	C	TRP	402	116.827	38.280	41.273	1.00	14.94	B	C
ATOM	9021	O	TRP	402	117.439	38.022	40.229	1.00	14.00	B	O
ATOM	9022	N	GLU	403	116.309	39.480	41.534	1.00	13.41	B	N
ATOM	9023	CA	GLU	403	116.368	40.554	40.548	1.00	12.05	B	C
ATOM	9024	CB	GLU	403	114.990	40.703	39.899	1.00	10.24	B	C
ATOM	9025	CG	GLU	403	114.408	39.396	39.398	1.00	10.20	B	C
ATOM	9026	CD	GLU	403	113.288	39.607	38.391	1.00	14.00	B	C
ATOM	9027	OE1	GLU	403	112.301	40.306	38.713	1.00	15.50	B	O
ATOM	9028	OE2	GLU	403	113.397	39.068	37.271	1.00	14.63	B	O
ATOM	9029	C	GLU	403	116.852	41.938	40.999	1.00	13.29	B	C
ATOM	9030	O	GLU	403	116.785	42.301	42.171	1.00	14.74	B	O
ATOM	9031	N	VAL	404	117.322	42.716	40.031	1.00	12.89	B	N
ATOM	9032	CA	VAL	404	117.800	44.067	40.270	1.00	12.91	B	C
ATOM	9033	CB	VAL	404	118.926	44.420	39.265	1.00	11.91	B	C
ATOM	9034	CG1	VAL	404	119.374	45.859	39.453	1.00	13.92	B	C
ATOM	9035	CG2	VAL	404	120.096	43.484	39.459	1.00	8.31	B	C
ATOM	9036	C	VAL	404	116.607	44.994	40.039	1.00	14.23	B	C
ATOM	9037	O	VAL	404	116.129	45.105	38.918	1.00	16.13	B	O
ATOM	9038	N	ILE	405	116.122	45.653	41.089	1.00	13.56	B	N
ATOM	9039	CA	ILE	405	114.968	46.540	40.951	1.00	12.56	B	C
ATOM	9040	CB	ILE	405	114.453	47.020	42.339	1.00	12.98	B	C
ATOM	9041	CG2	ILE	405	113.151	47.763	42.183	1.00	7.46	B	C
ATOM	9042	CG1	ILE	405	114.256	45.824	43.282	1.00	14.03	B	C
ATOM	9043	CD1	ILE	405	113.390	44.705	42.732	1.00	10.06	B	C
ATOM	9044	C	ILE	405	115.293	47.762	40.088	1.00	14.39	B	C
ATOM	9045	O	ILE	405	114.504	48.156	39.226	1.00	14.58	B	O
ATOM	9046	N	GLY	406	116.455	48.367	40.315	1.00	14.30	B	N
ATOM	9047	CA	GLY	406	116.822	49.521	39.521	1.00	12.80	B	C
ATOM	9048	C	GLY	406	118.253	49.967	39.708	1.00	13.75	B	C
ATOM	9049	O	GLY	406	118.858	49.708	40.737	1.00	16.89	B	O
ATOM	9050	N	ILE	407	118.806	50.618	38.691	1.00	14.84	B	N
ATOM	9051	CA	ILE	407	120.161	51.144	38.760	1.00	13.37	B	C
ATOM	9052	CB	ILE	407	120.797	51.192	37.361	1.00	11.30	B	C
ATOM	9053	CG2	ILE	407	122.039	52.077	37.373	1.00	11.29	B	C
ATOM	9054	CG1	ILE	407	121.163	49.768	36.936	1.00	9.82	B	C
ATOM	9055	CD1	ILE	407	121.237	49.545	35.446	1.00	9.37	B	C
ATOM	9056	C	ILE	407	119.991	52.546	39.343	1.00	15.02	B	C
ATOM	9057	O	ILE	407	119.236	53.361	38.819	1.00	14.39	B	O
ATOM	9058	N	GLU	408	120.692	52.825	40.431	1.00	16.63	B	N
ATOM	9059	CA	GLU	408	120.552	54.105	41.105	1.00	18.23	B	C
ATOM	9060	CB	GLU	408	120.373	53.849	42.601	1.00	21.53	B	C
ATOM	9061	CG	GLU	408	119.290	52.815	42.906	1.00	23.80	B	C
ATOM	9062	CD	GLU	408	117.916	53.275	42.456	1.00	27.87	B	C
ATOM	9063	OE1	GLU	408	117.135	52.429	41.967	1.00	30.29	B	O
ATOM	9064	OE2	GLU	408	117.612	54.483	42.598	1.00	29.06	B	O

(Continued)

FIG. 4-186

ATOM	9065	C	GLU	408	121.687	55.094	40.888	1.00	19.22	B C
ATOM	9066	O	GLU	408	121.468	56.306	40.924	1.00	21.06	B O
ATOM	9067	N	ALA	409	122.899	54.589	40.678	1.00	18.36	B N
ATOM	9068	CA	ALA	409	124.048	55.463	40.473	1.00	17.37	B C
ATOM	9069	CB	ALA	409	124.533	56.012	41.816	1.00	16.78	B C
ATOM	9070	C	ALA	409	125.189	54.756	39.755	1.00	17.45	B C
ATOM	9071	O	ALA	409	125.323	53.536	39.834	1.00	15.91	B O
ATOM	9072	N	LEU	410	126.009	55.545	39.062	1.00	17.35	B N
ATOM	9073	CA	LEU	410	127.140	55.034	38.311	1.00	17.53	B C
ATOM	9074	CB	LEU	410	126.722	54.817	36.857	1.00	16.60	B C
ATOM	9075	CG	LEU	410	127.767	54.292	35.862	1.00	18.12	B C
ATOM	9076	CD1	LEU	410	128.278	52.914	36.302	1.00	16.12	B C
ATOM	9077	CD2	LEU	410	127.144	54.224	34.467	1.00	14.82	B C
ATOM	9078	C	LEU	410	128.356	55.969	38.356	1.00	18.72	B C
ATOM	9079	O	LEU	410	128.228	57.175	38.190	1.00	20.28	B O
ATOM	9080	N	THR	411	129.532	55.396	38.589	1.00	18.37	B N
ATOM	9081	CA	THR	411	130.786	56.142	38.617	1.00	19.27	B C
ATOM	9082	CB	THR	411	131.360	56.286	40.060	1.00	18.85	B C
ATOM	9083	OG1	THR	411	131.869	55.024	40.514	1.00	17.72	B O
ATOM	9084	CG2	THR	411	130.284	56.764	41.012	1.00	17.11	B C
ATOM	9085	C	THR	411	131.744	55.293	37.784	1.00	20.67	B C
ATOM	9086	O	THR	411	131.374	54.200	37.357	1.00	23.60	B O
ATOM	9087	N	SER	412	132.961	55.772	37.543	1.00	21.07	B N
ATOM	9088	CA	SER	412	133.912	54.988	36.753	1.00	21.08	B C
ATOM	9089	CB	SER	412	135.124	55.827	36.365	1.00	18.37	B C
ATOM	9090	OG	SER	412	135.926	56.086	37.496	1.00	21.11	B O
ATOM	9091	C	SER	412	134.387	53.778	37.548	1.00	22.07	B C
ATOM	9092	O	SER	412	134.961	52.843	36.995	1.00	23.13	B O
ATOM	9093	N	ASP	413	134.144	53.790	38.850	1.00	22.17	B N
ATOM	9094	CA	ASP	413	134.581	52.677	39.673	1.00	22.98	B C
ATOM	9095	CB	ASP	413	135.339	53.198	40.895	1.00	25.67	B C
ATOM	9096	CG	ASP	413	136.731	53.697	40.548	1.00	28.45	B C
ATOM	9097	OD1	ASP	413	137.338	54.395	41.389	1.00	31.52	B O
ATOM	9098	OD2	ASP	413	137.228	53.385	39.444	1.00	29.95	B O
ATOM	9099	C	ASP	413	133.446	51.777	40.123	1.00	22.23	B C
ATOM	9100	O	ASP	413	133.624	50.565	40.248	1.00	22.67	B O
ATOM	9101	N	TYR	414	132.274	52.362	40.351	1.00	21.41	B N
ATOM	9102	CA	TYR	414	131.138	51.575	40.819	1.00	18.45	B C
ATOM	9103	CB	TYR	414	131.002	51.708	42.329	1.00	15.46	B C
ATOM	9104	CG	TYR	414	132.101	51.071	43.131	1.00	14.79	B C
ATOM	9105	CD1	TYR	414	132.118	49.699	43.357	1.00	14.59	B C
ATOM	9106	CE1	TYR	414	133.093	49.120	44.159	1.00	16.87	B C
ATOM	9107	CD2	TYR	414	133.093	51.850	43.718	1.00	14.91	B C
ATOM	9108	CE2	TYR	414	134.071	51.282	44.512	1.00	16.48	B C
ATOM	9109	CZ	TYR	414	134.066	49.921	44.733	1.00	16.25	B C
ATOM	9110	OH	TYR	414	135.030	49.369	45.541	1.00	19.68	B O
ATOM	9111	C	TYR	414	129.787	51.898	40.214	1.00	17.91	B C
ATOM	9112	O	TYR	414	129.547	52.990	39.693	1.00	17.06	B O
ATOM	9113	N	LEU	415	128.901	50.917	40.323	1.00	16.46	B N

(Continued)

FIG. 4-187

ATOM	9114	CA	LEU	415	127.537	51.027	39.855	1.00	14.70	B C
ATOM	9115	CB	LEU	415	127.297	50.040	38.714	1.00	13.43	B C
ATOM	9116	CG	LEU	415	125.924	50.107	38.049	1.00	15.02	B C
ATOM	9117	CD1	LEU	415	126.044	49.620	36.619	1.00	16.33	B C
ATOM	9118	CD2	LEU	415	124.899	49.295	38.852	1.00	15.41	B C
ATOM	9119	C	LEU	415	126.674	50.668	41.066	1.00	15.33	B C
ATOM	9120	O	LEU	415	126.777	49.566	41.601	1.00	16.82	B O
ATOM	9121	N	TYR	416	125.840	51.595	41.519	1.00	15.16	B N
ATOM	9122	CA	TYR	416	124.988	51.313	42.663	1.00	14.80	B C
ATOM	9123	CB	TYR	416	124.879	52.530	43.566	1.00	13.44	B C
ATOM	9124	CG	TYR	416	126.201	52.997	44.105	1.00	15.38	B C
ATOM	9125	CD1	TYR	416	127.031	53.835	43.350	1.00	14.10	B C
ATOM	9126	CE1	TYR	416	128.240	54.306	43.866	1.00	14.05	B C
ATOM	9127	CD2	TYR	416	126.618	52.630	45.386	1.00	14.93	B C
ATOM	9128	CE2	TYR	416	127.823	53.094	45.910	1.00	15.55	B C
ATOM	9129	CZ	TYR	416	128.625	53.938	45.147	1.00	15.00	B C
ATOM	9130	OH	TYR	416	129.766	54.466	45.699	1.00	14.00	B O
ATOM	9131	C	TYR	416	123.604	50.905	42.208	1.00	16.12	B C
ATOM	9132	O	TYR	416	123.041	51.511	41.296	1.00	16.07	B O
ATOM	9133	N	TYR	417	123.054	49.878	42.848	1.00	16.79	B N
ATOM	9134	CA	TYR	417	121.730	49.407	42.482	1.00	18.72	B C
ATOM	9135	CB	TYR	417	121.840	48.361	41.365	1.00	20.47	B C
ATOM	9136	CG	TYR	417	122.456	47.039	41.788	1.00	21.65	B C
ATOM	9137	CD1	TYR	417	121.656	45.983	42.226	1.00	22.60	B C
ATOM	9138	CE1	TYR	417	122.217	44.760	42.612	1.00	22.32	B C
ATOM	9139	CD2	TYR	417	123.835	46.843	41.748	1.00	21.40	B C
ATOM	9140	CE2	TYR	417	124.404	45.626	42.135	1.00	21.84	B C
ATOM	9141	CZ	TYR	417	123.588	44.590	42.565	1.00	22.22	B C
ATOM	9142	OH	TYR	417	124.139	43.386	42.950	1.00	22.23	B O
ATOM	9143	C	TYR	417	120.973	48.824	43.667	1.00	18.97	B C
ATOM	9144	O	TYR	417	121.523	48.640	44.746	1.00	18.94	B O
ATOM	9145	N	ILE	418	119.695	48.551	43.453	1.00	19.05	B N
ATOM	9146	CA	ILE	418	118.857	47.971	44.485	1.00	20.55	B C
ATOM	9147	CB	ILE	418	117.677	48.906	44.840	1.00	19.77	B C
ATOM	9148	CG2	ILE	418	116.692	48.187	45.742	1.00	20.86	B C
ATOM	9149	CG1	ILE	418	118.210	50.148	45.551	1.00	20.46	B C
ATOM	9150	CD1	ILE	418	117.183	51.211	45.792	1.00	23.81	B C
ATOM	9151	C	ILE	418	118.337	46.651	43.947	1.00	20.17	B C
ATOM	9152	O	ILE	418	118.011	46.546	42.767	1.00	21.74	B O
ATOM	9153	N	SER	419	118.272	45.642	44.808	1.00	19.61	B N
ATOM	9154	CA	SER	419	117.798	44.327	44.396	1.00	18.91	B C
ATOM	9155	CB	SER	419	118.969	43.480	43.923	1.00	17.21	B C
ATOM	9156	OG	SER	419	119.797	43.183	45.030	1.00	19.02	B O
ATOM	9157	C	SER	419	117.155	43.632	45.578	1.00	18.48	B C
ATOM	9158	O	SER	419	117.216	44.131	46.699	1.00	19.32	B O
ATOM	9159	N	ASN	420	116.536	42.481	45.326	1.00	17.64	B N
ATOM	9160	CA	ASN	420	115.913	41.716	46.395	1.00	16.73	B C
ATOM	9161	CB	ASN	420	114.448	41.406	46.067	1.00	13.22	B C
ATOM	9162	CG	ASN	420	114.279	40.740	44.724	1.00	13.67	B C

(Continued)

FIG. 4-188

ATOM	9163	OD1	ASN	420	115.220	40.146	44.193	1.00	14.68	B O
ATOM	9164	ND2	ASN	420	113.072	40.818	44.169	1.00	7.98	B N
ATOM	9165	C	ASN	420	116.700	40.426	46.638	1.00	16.85	B C
ATOM	9166	O	ASN	420	116.135	39.368	46.910	1.00	18.37	B O
ATOM	9167	N	GLU	421	118.018	40.532	46.543	1.00	17.15	B N
ATOM	9168	CA	GLU	421	118.895	39.393	46.754	1.00	19.34	B C
ATOM	9169	CB	GLU	421	120.291	39.694	46.195	1.00	18.78	B C
ATOM	9170	CG	GLU	421	121.358	38.747	46.734	1.00	20.75	B C
ATOM	9171	CD	GLU	421	122.661	38.782	45.951	1.00	22.48	B C
ATOM	9172	OE1	GLU	421	123.169	39.890	45.661	1.00	21.18	B O
ATOM	9173	OE2	GLU	421	123.184	37.689	45.639	1.00	22.04	B O
ATOM	9174	C	GLU	421	119.028	38.945	48.218	1.00	19.80	B C
ATOM	9175	O	GLU	421	118.960	37.756	48.519	1.00	20.89	B O
ATOM	9176	N	TYR	422	119.223	39.897	49.120	1.00	19.38	B N
ATOM	9177	CA	TYR	422	119.401	39.596	50.530	1.00	19.16	B C
ATOM	9178	CB	TYR	422	119.386	40.895	51.326	1.00	19.06	B C
ATOM	9179	CG	TYR	422	119.881	40.746	52.741	1.00	21.59	B C
ATOM	9180	CD1	TYR	422	121.046	40.023	53.024	1.00	19.84	B C
ATOM	9181	CE1	TYR	422	121.510	39.893	54.314	1.00	19.73	B C
ATOM	9182	CD2	TYR	422	119.198	41.334	53.798	1.00	21.32	B C
ATOM	9183	CE2	TYR	422	119.658	41.210	55.097	1.00	23.82	B C
ATOM	9184	CZ	TYR	422	120.813	40.488	55.347	1.00	23.64	B C
ATOM	9185	OH	TYR	422	121.267	40.376	56.637	1.00	28.92	B O
ATOM	9186	C	TYR	422	118.401	38.600	51.114	1.00	20.84	B C
ATOM	9187	O	TYR	422	117.187	38.779	51.012	1.00	22.40	B O
ATOM	9188	N	LYS	423	118.933	37.546	51.732	1.00	21.52	B N
ATOM	9189	CA	LYS	423	118.130	36.486	52.340	1.00	21.53	B C
ATOM	9190	CB	LYS	423	117.436	36.995	53.608	1.00	22.83	B C
ATOM	9191	CG	LYS	423	118.393	37.278	54.751	1.00	25.85	B C
ATOM	9192	CD	LYS	423	117.677	37.707	56.020	1.00	27.71	B C
ATOM	9193	CE	LYS	423	118.692	38.082	57.098	1.00	31.46	B C
ATOM	9194	NZ	LYS	423	118.052	38.548	58.367	1.00	31.96	B N
ATOM	9195	C	LYS	423	117.097	35.906	51.378	1.00	21.44	B C
ATOM	9196	O	LYS	423	116.114	35.293	51.797	1.00	22.16	B O
ATOM	9197	N	GLY	424	117.331	36.106	50.086	1.00	20.50	B N
ATOM	9198	CA	GLY	424	116.430	35.595	49.070	1.00	20.06	B C
ATOM	9199	C	GLY	424	114.969	35.945	49.274	1.00	20.45	B C
ATOM	9200	O	GLY	424	114.102	35.120	49.013	1.00	21.91	B O
ATOM	9201	N	MET	425	114.695	37.163	49.739	1.00	20.34	B N
ATOM	9202	CA	MET	425	113.322	37.627	49.968	1.00	18.53	B C
ATOM	9203	CB	MET	425	113.234	38.329	51.317	1.00	19.68	B C
ATOM	9204	CG	MET	425	113.756	37.501	52.469	1.00	22.38	B C
ATOM	9205	SD	MET	425	113.506	38.352	54.020	1.00	24.27	B S
ATOM	9206	CE	MET	425	111.741	38.663	53.907	1.00	21.26	B C
ATOM	9207	C	MET	425	112.908	38.604	48.871	1.00	16.75	B C
ATOM	9208	O	MET	425	113.405	39.725	48.819	1.00	17.33	B O
ATOM	9209	N	PRO	426	111.968	38.206	47.999	1.00	16.64	B N
ATOM	9210	CD	PRO	426	111.173	36.969	48.017	1.00	17.29	B C
ATOM	9211	CA	PRO	426	111.530	39.089	46.910	1.00	15.29	B C

(Continued)

FIG. 4-189

ATOM	9212	CB	PRO	426	110.523	38.233	46.140	1.00 15.30	B	C
ATOM	9213	CG	PRO	426	110.816	36.823	46.561	1.00 15.73	B	C
ATOM	9214	C	PRO	426	110.901	40.379	47.416	1.00 15.48	B	C
ATOM	9215	O	PRO	426	110.913	41.402	46.727	1.00 15.90	B	O
ATOM	9216	N	GLY	427	110.362	40.321	48.630	1.00 14.46	B	N
ATOM	9217	CA	GLY	427	109.718	41.480	49.217	1.00 13.34	B	C
ATOM	9218	C	GLY	427	110.649	42.449	49.919	1.00 13.11	B	C
ATOM	9219	O	GLY	427	110.184	43.462	50.452	1.00 14.26	B	O
ATOM	9220	N	GLY	428	111.947	42.144	49.942	1.00 9.68	B	N
ATOM	9221	CA	GLY	428	112.902	43.036	50.577	1.00 8.65	B	C
ATOM	9222	C	GLY	428	113.735	43.771	49.538	1.00 10.35	B	C
ATOM	9223	O	GLY	428	113.778	43.363	48.377	1.00 10.03	B	O
ATOM	9224	N	ARG	429	114.406	44.844	49.946	1.00 11.09	B	N
ATOM	9225	CA	ARG	429	115.224	45.630	49.023	1.00 12.98	B	C
ATOM	9226	CB	ARG	429	114.349	46.667	48.314	1.00 14.68	B	C
ATOM	9227	CG	ARG	429	113.580	46.084	47.144	1.00 18.95	B	C
ATOM	9228	CD	ARG	429	112.423	46.947	46.701	1.00 18.69	B	C
ATOM	9229	NE	ARG	429	111.590	46.279	45.699	1.00 19.88	B	N
ATOM	9230	CZ	ARG	429	111.184	45.008	45.769	1.00 21.09	B	C
ATOM	9231	NH1	ARG	429	111.535	44.227	46.791	1.00 17.36	B	N
ATOM	9232	NH2	ARG	429	110.390	44.520	44.825	1.00 20.65	B	N
ATOM	9233	C	ARG	429	116.420	46.328	49.678	1.00 13.64	B	C
ATOM	9234	O	ARG	429	116.291	46.983	50.707	1.00 13.96	B	O
ATOM	9235	N	ASN	430	117.584	46.198	49.056	1.00 12.81	B	N
ATOM	9236	CA	ASN	430	118.784	46.812	49.585	1.00 13.48	B	C
ATOM	9237	CB	ASN	430	119.605	45.767	50.344	1.00 11.94	B	C
ATOM	9238	CG	ASN	430	118.985	45.411	51.677	1.00 12.47	B	C
ATOM	9239	OD1	ASN	430	119.104	46.167	52.652	1.00 11.56	B	O
ATOM	9240	ND2	ASN	430	118.293	44.277	51.727	1.00 7.39	B	N
ATOM	9241	C	ASN	430	119.644	47.477	48.528	1.00 14.50	B	C
ATOM	9242	O	ASN	430	119.530	47.189	47.335	1.00 14.26	B	O
ATOM	9243	N	LEU	431	120.504	48.377	48.992	1.00 16.18	B	N
ATOM	9244	CA	LEU	431	121.425	49.107	48.135	1.00 17.01	B	C
ATOM	9245	CB	LEU	431	121.709	50.496	48.713	1.00 16.67	B	C
ATOM	9246	CG	LEU	431	122.825	51.279	48.012	1.00 18.10	B	C
ATOM	9247	CD1	LEU	431	122.501	51.399	46.528	1.00 17.30	B	C
ATOM	9248	CD2	LEU	431	122.998	52.651	48.667	1.00 14.93	B	C
ATOM	9249	C	LEU	431	122.729	48.338	48.022	1.00 17.39	B	C
ATOM	9250	O	LEU	431	123.367	48.018	49.028	1.00 19.06	B	O
ATOM	9251	N	TYR	432	123.112	48.038	46.789	1.00 17.62	B	N
ATOM	9252	CA	TYR	432	124.344	47.317	46.511	1.00 18.05	B	C
ATOM	9253	CB	TYR	432	124.061	45.978	45.826	1.00 17.24	B	C
ATOM	9254	CG	TYR	432	123.334	44.944	46.654	1.00 18.80	B	C
ATOM	9255	CD1	TYR	432	121.962	45.034	46.883	1.00 19.62	B	C
ATOM	9256	CE1	TYR	432	121.289	44.049	47.601	1.00 19.23	B	C
ATOM	9257	CD2	TYR	432	124.015	43.843	47.169	1.00 17.63	B	C
ATOM	9258	CE2	TYR	432	123.360	42.862	47.882	1.00 18.49	B	C
ATOM	9259	CZ	TYR	432	121.996	42.968	48.099	1.00 20.13	B	C
ATOM	9260	OH	TYR	432	121.358	41.994	48.834	1.00 21.75	B	O

(Continued)

FIG. 4-190

ATOM	9261	C	TYR	432	125.193	48.142	45.557	1.00	17.78	B	C
ATOM	9262	O	TYR	432	124.700	49.066	44.903	1.00	18.57	B	O
ATOM	9263	N	LYS	433	126.474	47.805	45.486	1.00	16.13	B	N
ATOM	9264	CA	LYS	433	127.386	48.460	44.563	1.00	14.57	B	C
ATOM	9265	CB	LYS	433	128.237	49.536	45.251	1.00	16.46	B	C
ATOM	9266	CG	LYS	433	129.297	49.022	46.215	1.00	16.27	B	C
ATOM	9267	CD	LYS	433	130.239	50.146	46.606	1.00	16.51	B	C
ATOM	9268	CE	LYS	433	131.190	49.723	47.712	1.00	16.69	B	C
ATOM	9269	NZ	LYS	433	132.101	50.834	48.104	1.00	17.27	B	N
ATOM	9270	C	LYS	433	128.269	47.343	44.058	1.00	13.68	B	C
ATOM	9271	O	LYS	433	128.654	46.454	44.820	1.00	11.44	B	O
ATOM	9272	N	ILE	434	128.564	47.364	42.767	1.00	13.85	B	N
ATOM	9273	CA	ILE	434	129.411	46.331	42.191	1.00	15.56	B	C
ATOM	9274	CB	ILE	434	128.645	45.504	41.124	1.00	14.45	B	C
ATOM	9275	CG2	ILE	434	128.054	46.429	40.061	1.00	11.95	B	C
ATOM	9276	CG1	ILE	434	129.580	44.458	40.518	1.00	14.14	B	C
ATOM	9277	CD1	ILE	434	128.978	43.676	39.379	1.00	14.42	B	C
ATOM	9278	C	ILE	434	130.646	46.973	41.573	1.00	16.13	B	C
ATOM	9279	O	ILE	434	130.554	48.003	40.915	1.00	17.71	B	O
ATOM	9280	N	GLN	435	131.804	46.374	41.809	1.00	18.33	B	N
ATOM	9281	CA	GLN	435	133.045	46.907	41.263	1.00	20.88	B	C
ATOM	9282	CB	GLN	435	134.253	46.264	41.956	1.00	21.76	B	C
ATOM	9283	CG	GLN	435	135.490	47.145	41.958	1.00	24.28	B	C
ATOM	9284	CD	GLN	435	136.715	46.461	42.547	1.00	25.69	B	C
ATOM	9285	OE1	GLN	435	136.763	46.154	43.741	1.00	26.08	B	O
ATOM	9286	NE2	GLN	435	137.713	46.220	41.705	1.00	24.68	B	N
ATOM	9287	C	GLN	435	133.068	46.617	39.767	1.00	20.60	B	C
ATOM	9288	O	GLN	435	132.969	45.465	39.348	1.00	20.57	B	O
ATOM	9289	N	LEU	436	133.200	47.668	38.965	1.00	21.54	B	N
ATOM	9290	CA	LEU	436	133.197	47.527	37.513	1.00	23.39	B	C
ATOM	9291	CB	LEU	436	133.050	48.905	36.880	1.00	21.46	B	C
ATOM	9292	CG	LEU	436	131.785	49.596	37.386	1.00	19.80	B	C
ATOM	9293	CD1	LEU	436	131.748	51.035	36.920	1.00	19.31	B	C
ATOM	9294	CD2	LEU	436	130.572	48.831	36.895	1.00	18.85	B	C
ATOM	9295	C	LEU	436	134.391	46.790	36.908	1.00	25.55	B	C
ATOM	9296	O	LEU	436	134.294	46.242	35.810	1.00	27.46	B	O
ATOM	9297	N	SER	437	135.517	46.775	37.613	1.00	26.98	B	N
ATOM	9298	CA	SER	437	136.690	46.069	37.119	1.00	26.89	B	C
ATOM	9299	CB	SER	437	137.967	46.683	37.689	1.00	26.26	B	C
ATOM	9300	OG	SER	437	137.940	46.694	39.102	1.00	31.19	B	O
ATOM	9301	C	SER	437	136.593	44.597	37.507	1.00	27.29	B	C
ATOM	9302	O	SER	437	137.152	43.736	36.832	1.00	29.17	B	O
ATOM	9303	N	ASP	438	135.882	44.310	38.595	1.00	26.66	B	N
ATOM	9304	CA	ASP	438	135.704	42.930	39.049	1.00	26.32	B	C
ATOM	9305	CB	ASP	438	136.702	42.588	40.151	1.00	28.65	B	C
ATOM	9306	CG	ASP	438	136.622	41.135	40.571	1.00	30.81	B	C
ATOM	9307	OD1	ASP	438	135.517	40.557	40.495	1.00	32.19	B	O
ATOM	9308	OD2	ASP	438	137.659	40.575	40.990	1.00	33.46	B	O
ATOM	9309	C	ASP	438	134.286	42.691	39.572	1.00	24.90	B	C

(Continued)

FIG. 4-191

ATOM	9310	O	ASP	438	133.959	43.060	40.700	1.00	22.15	B	O
ATOM	9311	N	TYR	439	133.461	42.046	38.753	1.00	23.79	B	N
ATOM	9312	CA	TYR	439	132.083	41.780	39.123	1.00	23.74	B	C
ATOM	9313	CB	TYR	439	131.301	41.243	37.924	1.00	22.94	B	C
ATOM	9314	CG	TYR	439	131.357	42.125	36.698	1.00	22.91	B	C
ATOM	9315	CD1	TYR	439	131.420	43.514	36.814	1.00	22.44	B	C
ATOM	9316	CE1	TYR	439	131.442	44.329	35.687	1.00	22.19	B	C
ATOM	9317	CD2	TYR	439	131.322	41.572	35.416	1.00	22.08	B	C
ATOM	9318	CE2	TYR	439	131.348	42.379	34.285	1.00	21.13	B	C
ATOM	9319	CZ	TYR	439	131.405	43.753	34.430	1.00	21.92	B	C
ATOM	9320	OH	TYR	439	131.410	44.552	33.314	1.00	24.24	B	O
ATOM	9321	C	TYR	439	131.928	40.823	40.294	1.00	24.38	B	C
ATOM	9322	O	TYR	439	130.882	40.801	40.933	1.00	25.27	B	O
ATOM	9323	N	THR	440	132.953	40.030	40.584	1.00	24.21	B	N
ATOM	9324	CA	THR	440	132.858	39.094	41.699	1.00	23.35	B	C
ATOM	9325	CB	THR	440	134.102	38.196	41.806	1.00	23.70	B	C
ATOM	9326	OG1	THR	440	135.221	38.975	42.250	1.00	22.70	B	O
ATOM	9327	CG2	THR	440	134.418	37.568	40.462	1.00	23.82	B	C
ATOM	9328	C	THR	440	132.712	39.852	43.014	1.00	22.79	B	C
ATOM	9329	O	THR	440	132.169	39.328	43.987	1.00	21.81	B	O
ATOM	9330	N	LYS	441	133.200	41.087	43.039	1.00	22.86	B	N
ATOM	9331	CA	LYS	441	133.123	41.905	44.243	1.00	22.90	B	C
ATOM	9332	CB	LYS	441	134.396	42.741	44.375	1.00	25.86	B	C
ATOM	9333	CG	LYS	441	135.620	41.878	44.682	1.00	30.20	B	C
ATOM	9334	CD	LYS	441	136.871	42.702	44.878	1.00	34.36	B	C
ATOM	9335	CE	LYS	441	138.053	41.804	45.201	1.00	37.32	B	C
ATOM	9336	NZ	LYS	441	139.319	42.577	45.346	1.00	40.04	B	N
ATOM	9337	C	LYS	441	131.881	42.794	44.329	1.00	21.89	B	C
ATOM	9338	O	LYS	441	131.828	43.891	43.768	1.00	21.84	B	O
ATOM	9339	N	VAL	442	130.880	42.289	45.039	1.00	19.62	B	N
ATOM	9340	CA	VAL	442	129.624	42.984	45.242	1.00	17.69	B	C
ATOM	9341	CB	VAL	442	128.458	42.093	44.799	1.00	17.33	B	C
ATOM	9342	CG1	VAL	442	127.123	42.770	45.119	1.00	15.79	B	C
ATOM	9343	CG2	VAL	442	128.586	41.792	43.306	1.00	11.20	B	C
ATOM	9344	C	VAL	442	129.502	43.299	46.733	1.00	20.40	B	C
ATOM	9345	O	VAL	442	129.742	42.437	47.572	1.00	22.84	B	O
ATOM	9346	N	THR	443	129.129	44.528	47.066	1.00	20.64	B	N
ATOM	9347	CA	THR	443	129.015	44.927	48.461	1.00	22.17	B	C
ATOM	9348	CB	THR	443	130.040	46.035	48.801	1.00	24.13	B	C
ATOM	9349	OG1	THR	443	131.370	45.566	48.546	1.00	28.90	B	O
ATOM	9350	CG2	THR	443	129.923	46.442	50.255	1.00	22.91	B	C
ATOM	9351	C	THR	443	127.641	45.475	48.819	1.00	23.06	B	C
ATOM	9352	O	THR	443	127.210	46.483	48.254	1.00	26.29	B	O
ATOM	9353	N	CYS	444	126.948	44.835	49.754	1.00	21.88	B	N
ATOM	9354	CA	CYS	444	125.656	45.368	50.163	1.00	22.22	B	C
ATOM	9355	C	CYS	444	125.963	46.516	51.115	1.00	20.79	B	C
ATOM	9356	O	CYS	444	126.866	46.411	51.941	1.00	19.89	B	O
ATOM	9357	CB	CYS	444	124.801	44.328	50.878	1.00	24.50	B	C
ATOM	9358	SG	CYS	444	123.137	44.986	51.221	1.00	27.42	B	S

(Continued)

FIG. 4-192

ATOM	9359	N	LEU	445	125.205	47.602	51.005	1.00	20.20	B N
ATOM	9360	CA	LEU	445	125.442	48.785	51.824	1.00	17.71	B C
ATOM	9361	CB	LEU	445	125.651	49.988	50.899	1.00	15.76	B C
ATOM	9362	CG	LEU	445	126.714	49.756	49.812	1.00	15.86	B C
ATOM	9363	CD1	LEU	445	126.930	51.008	48.970	1.00	13.93	B C
ATOM	9364	CD2	LEU	445	128.007	49.333	50.480	1.00	12.34	B C
ATOM	9365	C	LEU	445	124.333	49.099	52.814	1.00	19.64	B C
ATOM	9366	O	LEU	445	124.446	50.036	53.608	1.00	20.41	B O
ATOM	9367	N	SER	446	123.262	48.314	52.776	1.00	21.11	B N
ATOM	9368	CA	SER	446	122.131	48.552	53.656	1.00	20.24	B C
ATOM	9369	CB	SER	446	120.947	49.077	52.834	1.00	20.38	B C
ATOM	9370	OG	SER	446	120.577	48.143	51.829	1.00	18.25	B O
ATOM	9371	C	SER	446	121.708	47.307	54.411	1.00	20.86	B C
ATOM	9372	O	SER	446	121.085	47.404	55.463	1.00	21.91	B O
ATOM	9373	N	CYS	447	122.043	46.141	53.874	1.00	21.42	B N
ATOM	9374	CA	CYS	447	121.667	44.875	54.495	1.00	23.05	B C
ATOM	9375	C	CYS	447	121.845	44.816	56.004	1.00	23.84	B C
ATOM	9376	O	CYS	447	120.881	44.602	56.739	1.00	24.50	B O
ATOM	9377	CB	CYS	447	122.461	43.722	53.874	1.00	24.68	B C
ATOM	9378	SG	CYS	447	122.134	43.458	52.103	1.00	31.64	B S
ATOM	9379	N	GLU	448	123.080	45.011	56.463	1.00	23.42	B N
ATOM	9380	CA	GLU	448	123.394	44.913	57.881	1.00	23.49	B C
ATOM	9381	CB	GLU	448	124.805	44.358	58.061	1.00	24.37	B C
ATOM	9382	CG	GLU	448	125.060	43.017	57.395	1.00	28.24	B C
ATOM	9383	CD	GLU	448	123.996	41.985	57.713	1.00	34.11	B C
ATOM	9384	OE1	GLU	448	123.377	42.073	58.796	1.00	36.48	B O
ATOM	9385	OE2	GLU	448	123.786	41.070	56.882	1.00	37.27	B O
ATOM	9386	C	GLU	448	123.249	46.162	58.738	1.00	23.12	B C
ATOM	9387	O	GLU	448	123.458	46.101	59.948	1.00	24.21	B O
ATOM	9388	N	LEU	449	122.900	47.289	58.134	1.00	20.81	B N
ATOM	9389	CA	LEU	449	122.733	48.516	58.899	1.00	20.59	B C
ATOM	9390	CB	LEU	449	122.123	49.592	58.010	1.00	18.76	B C
ATOM	9391	CG	LEU	449	123.019	50.143	56.909	1.00	17.31	B C
ATOM	9392	CD1	LEU	449	122.221	51.089	56.045	1.00	18.95	B C
ATOM	9393	CD2	LEU	449	124.199	50.868	57.527	1.00	16.25	B C
ATOM	9394	C	LEU	449	121.853	48.311	60.144	1.00	22.20	B C
ATOM	9395	O	LEU	449	122.232	48.674	61.261	1.00	22.97	B O
ATOM	9396	N	ASN	450	120.677	47.731	59.937	1.00	22.75	B N
ATOM	9397	CA	ASN	450	119.729	47.462	61.011	1.00	21.80	B C
ATOM	9398	CB	ASN	450	118.958	48.731	61.344	1.00	23.73	B C
ATOM	9399	CG	ASN	450	118.226	48.632	62.661	1.00	26.67	B C
ATOM	9400	OD1	ASN	450	117.678	47.581	63.004	1.00	26.78	B O
ATOM	9401	ND2	ASN	450	118.199	49.733	63.406	1.00	26.73	B N
ATOM	9402	C	ASN	450	118.772	46.400	60.469	1.00	22.01	B C
ATOM	9403	O	ASN	450	117.649	46.701	60.072	1.00	21.48	B O
ATOM	9404	N	PRO	451	119.215	45.134	60.442	1.00	21.65	B N
ATOM	9405	CD	PRO	451	120.506	44.673	60.969	1.00	20.73	B C
ATOM	9406	CA	PRO	451	118.430	44.004	59.941	1.00	21.39	B C
ATOM	9407	CB	PRO	451	119.362	42.817	60.162	1.00	19.94	B C

(Continued)

FIG. 4-193

ATOM	9408	CG	PRO	451	120.209	43.253	61.290	1.00	21.78	B	C
ATOM	9409	C	PRO	451	117.035	43.774	60.509	1.00	23.49	B	C
ATOM	9410	O	PRO	451	116.125	43.392	59.774	1.00	25.06	B	O
ATOM	9411	N	GLU	452	116.850	44.003	61.800	1.00	24.25	B	N
ATOM	9412	CA	GLU	452	115.539	43.793	62.394	1.00	26.56	B	C
ATOM	9413	CB	GLU	452	115.650	43.767	63.920	1.00	32.21	B	C
ATOM	9414	CG	GLU	452	116.621	42.720	64.455	1.00	39.54	B	C
ATOM	9415	CD	GLU	452	116.666	42.675	65.976	1.00	44.38	B	C
ATOM	9416	OE1	GLU	452	117.355	41.782	66.521	1.00	47.19	B	O
ATOM	9417	OE2	GLU	452	116.019	43.529	66.627	1.00	46.89	B	O
ATOM	9418	C	GLU	452	114.543	44.867	61.968	1.00	25.59	B	C
ATOM	9419	O	GLU	452	113.374	44.582	61.733	1.00	27.44	B	O
ATOM	9420	N	ARG	453	115.010	46.101	61.848	1.00	23.36	B	N
ATOM	9421	CA	ARG	453	114.132	47.198	61.478	1.00	21.67	B	C
ATOM	9422	CB	ARG	453	114.539	48.463	62.234	1.00	21.94	B	C
ATOM	9423	CG	ARG	453	113.714	49.685	61.872	1.00	20.24	B	C
ATOM	9424	CD	ARG	453	114.165	50.878	62.662	1.00	17.23	B	C
ATOM	9425	NE	ARG	453	113.364	52.058	62.375	1.00	16.99	B	N
ATOM	9426	CZ	ARG	453	113.582	53.245	62.927	1.00	17.21	B	C
ATOM	9427	NH1	ARG	453	114.579	53.391	63.791	1.00	17.27	B	N
ATOM	9428	NH2	ARG	453	112.813	54.280	62.619	1.00	14.66	B	N
ATOM	9429	C	ARG	453	114.077	47.527	59.994	1.00	21.78	B	C
ATOM	9430	O	ARG	453	113.024	47.910	59.477	1.00	20.58	B	O
ATOM	9431	N	CYS	454	115.206	47.368	59.312	1.00	21.64	B	N
ATOM	9432	CA	CYS	454	115.293	47.715	57.903	1.00	19.87	B	C
ATOM	9433	C	CYS	454	115.598	46.616	56.896	1.00	19.70	B	C
ATOM	9434	O	CYS	454	116.698	46.074	56.865	1.00	21.81	B	O
ATOM	9435	CB	CYS	454	116.295	48.847	57.770	1.00	19.47	B	C
ATOM	9436	SG	CYS	454	115.666	50.300	58.650	1.00	18.98	B	S
ATOM	9437	N	GLN	455	114.608	46.332	56.051	1.00	19.11	B	N
ATOM	9438	CA	GLN	455	114.692	45.305	55.015	1.00	14.77	B	C
ATOM	9439	CB	GLN	455	113.881	44.085	55.457	1.00	13.34	B	C
ATOM	9440	CG	GLN	455	114.425	43.413	56.711	1.00	12.92	B	C
ATOM	9441	CD	GLN	455	113.425	42.482	57.387	1.00	13.33	B	C
ATOM	9442	OE1	GLN	455	112.514	41.958	56.749	1.00	14.25	B	O
ATOM	9443	NE2	GLN	455	113.605	42.266	58.688	1.00	13.47	B	N
ATOM	9444	C	GLN	455	114.156	45.815	53.669	1.00	14.10	B	C
ATOM	9445	O	GLN	455	114.058	45.059	52.704	1.00	14.35	B	O
ATOM	9446	N	TYR	456	113.803	47.094	53.597	1.00	13.95	B	N
ATOM	9447	CA	TYR	456	113.268	47.651	52.355	1.00	13.75	B	C
ATOM	9448	CB	TYR	456	111.742	47.600	52.387	1.00	13.55	B	C
ATOM	9449	CG	TYR	456	111.049	47.707	51.045	1.00	10.86	B	C
ATOM	9450	CD1	TYR	456	110.504	46.578	50.436	1.00	10.75	B	C
ATOM	9451	CE1	TYR	456	109.815	46.674	49.236	1.00	9.29	B	C
ATOM	9452	CD2	TYR	456	110.891	48.941	50.405	1.00	9.71	B	C
ATOM	9453	CE2	TYR	456	110.207	49.046	49.200	1.00	4.15	B	C
ATOM	9454	CZ	TYR	456	109.669	47.910	48.629	1.00	8.20	B	C
ATOM	9455	OH	TYR	456	108.949	47.994	47.464	1.00	11.71	B	O
ATOM	9456	C	TYR	456	113.718	49.092	52.190	1.00	14.04	B	C

(Continued)

FIG. 4 - 194

ATOM	9457	O	TYR	456	113.127	49.991	52.775	1.00	15.30	B	O
ATOM	9458	N	TYR	457	114.752	49.309	51.382	1.00	15.11	B	N
ATOM	9459	CA	TYR	457	115.286	50.646	51.152	1.00	14.85	B	C
ATOM	9460	CB	TYR	457	116.792	50.674	51.390	1.00	14.57	B	C
ATOM	9461	CG	TYR	457	117.271	50.394	52.786	1.00	14.62	B	C
ATOM	9462	CD1	TYR	457	117.364	49.088	53.275	1.00	14.47	B	C
ATOM	9463	CE1	TYR	457	117.903	48.836	54.540	1.00	14.12	B	C
ATOM	9464	CD2	TYR	457	117.714	51.434	53.595	1.00	13.34	B	C
ATOM	9465	CE2	TYR	457	118.245	51.193	54.850	1.00	13.51	B	C
ATOM	9466	CZ	TYR	457	118.341	49.902	55.318	1.00	11.72	B	C
ATOM	9467	OH	TYR	457	118.877	49.701	56.559	1.00	8.57	B	O
ATOM	9468	C	TYR	457	115.085	51.192	49.742	1.00	15.66	B	C
ATOM	9469	O	TYR	457	114.827	50.455	48.797	1.00	17.46	B	O
ATOM	9470	N	SER	458	115.234	52.505	49.624	1.00	14.42	B	N
ATOM	9471	CA	SER	458	115.176	53.207	48.352	1.00	14.00	B	C
ATOM	9472	CB	SER	458	113.853	53.950	48.163	1.00	12.81	B	C
ATOM	9473	OG	SER	458	113.804	55.138	48.932	1.00	15.84	B	O
ATOM	9474	C	SER	458	116.318	54.175	48.620	1.00	15.10	B	C
ATOM	9475	O	SER	458	116.631	54.431	49.791	1.00	14.29	B	O
ATOM	9476	N	VAL	459	116.946	54.709	47.574	1.00	13.45	B	N
ATOM	9477	CA	VAL	459	118.086	55.593	47.779	1.00	13.00	B	C
ATOM	9478	CB	VAL	459	119.392	54.853	47.433	1.00	13.28	B	C
ATOM	9479	CG1	VAL	459	119.442	54.578	45.934	1.00	10.72	B	C
ATOM	9480	CG2	VAL	459	120.600	55.672	47.878	1.00	13.89	B	C
ATOM	9481	C	VAL	459	118.051	56.882	46.969	1.00	14.23	B	C
ATOM	9482	O	VAL	459	117.283	57.007	46.021	1.00	14.51	B	O
ATOM	9483	N	SER	460	118.901	57.834	47.347	1.00	14.01	B	N
ATOM	9484	CA	SER	460	118.997	59.106	46.643	1.00	14.81	B	C
ATOM	9485	CB	SER	460	118.039	60.116	47.272	1.00	15.45	B	C
ATOM	9486	OG	SER	460	118.038	61.333	46.553	1.00	18.07	B	O
ATOM	9487	C	SER	460	120.442	59.629	46.693	1.00	15.15	B	C
ATOM	9488	O	SER	460	120.930	60.040	47.752	1.00	14.75	B	O
ATOM	9489	N	PHE	461	121.123	59.611	45.547	1.00	14.99	B	N
ATOM	9490	CA	PHE	461	122.516	60.068	45.469	1.00	14.06	B	C
ATOM	9491	CB	PHE	461	123.314	59.229	44.454	1.00	10.57	B	C
ATOM	9492	CG	PHE	461	123.583	57.809	44.885	1.00	8.39	B	C
ATOM	9493	CD1	PHE	461	122.594	56.832	44.792	1.00	7.71	B	C
ATOM	9494	CD2	PHE	461	124.837	57.444	45.367	1.00	6.73	B	C
ATOM	9495	CE1	PHE	461	122.848	55.509	45.172	1.00	6.28	B	C
ATOM	9496	CE2	PHE	461	125.105	56.118	45.752	1.00	6.24	B	C
ATOM	9497	CZ	PHE	461	124.108	55.153	45.653	1.00	6.94	B	C
ATOM	9498	C	PHE	461	122.665	61.533	45.066	1.00	16.79	B	C
ATOM	9499	O	PHE	461	121.833	62.076	44.340	1.00	17.81	B	O
ATOM	9500	N	SER	462	123.740	62.170	45.528	1.00	18.84	B	N
ATOM	9501	CA	SER	462	124.019	63.555	45.155	1.00	20.51	B	C
ATOM	9502	CB	SER	462	125.131	64.137	46.036	1.00	21.92	B	C
ATOM	9503	OG	SER	462	126.346	63.421	45.878	1.00	24.40	B	O
ATOM	9504	C	SER	462	124.465	63.559	43.687	1.00	20.69	B	C
ATOM	9505	O	SER	462	124.607	62.505	43.075	1.00	21.27	B	O

(Continued)

FIG. 4-195

ATOM	9506	N	LYS	463	124.708	64.736	43.128	1.00 22.99	B	N
ATOM	9507	CA	LYS	463	125.109	64.846	41.728	1.00 25.69	B	C
ATOM	9508	CB	LYS	463	125.483	66.291	41.401	1.00 27.00	B	C
ATOM	9509	CG	LYS	463	124.275	67.189	41.270	1.00 30.44	B	C
ATOM	9510	CD	LYS	463	124.427	68.146	40.097	1.00 35.16	B	C
ATOM	9511	CE	LYS	463	123.083	68.756	39.718	1.00 37.88	B	C
ATOM	9512	NZ	LYS	463	123.169	69.566	38.471	1.00 40.00	B	N
ATOM	9513	C	LYS	463	126.204	63.904	41.230	1.00 26.63	B	C
ATOM	9514	O	LYS	463	126.057	63.297	40.169	1.00 27.72	B	O
ATOM	9515	N	GLU	464	127.305	63.777	41.959	1.00 27.45	B	N
ATOM	9516	CA	GLU	464	128.355	62.868	41.502	1.00 28.40	B	C
ATOM	9517	CB	GLU	464	129.710	63.576	41.429	1.00 31.19	B	C
ATOM	9518	CG	GLU	464	130.079	64.030	40.027	1.00 35.17	B	C
ATOM	9519	CD	GLU	464	129.150	65.100	39.495	1.00 37.56	B	C
ATOM	9520	OE1	GLU	464	129.200	66.229	40.022	1.00 41.38	B	O
ATOM	9521	OE2	GLU	464	128.371	64.817	38.557	1.00 38.51	B	O
ATOM	9522	C	GLU	464	128.476	61.627	42.367	1.00 26.36	B	C
ATOM	9523	O	GLU	464	129.515	60.975	42.379	1.00 25.64	B	O
ATOM	9524	N	ALA	465	127.404	61.302	43.081	1.00 23.96	B	N
ATOM	9525	CA	ALA	465	127.372	60.127	43.936	1.00 21.85	B	C
ATOM	9526	CB	ALA	465	127.663	58.869	43.121	1.00 21.46	B	C
ATOM	9527	C	ALA	465	128.362	60.245	45.074	1.00 20.68	B	C
ATOM	9528	O	ALA	465	128.850	59.244	45.591	1.00 16.26	B	O
ATOM	9529	N	LYS	466	128.661	61.476	45.462	1.00 22.56	B	N
ATOM	9530	CA	LYS	466	129.588	61.693	46.562	1.00 24.73	B	C
ATOM	9531	CB	LYS	466	130.041	63.154	46.609	1.00 25.44	B	C
ATOM	9532	CG	LYS	466	131.173	63.405	47.581	1.00 29.20	B	C
ATOM	9533	CD	LYS	466	131.835	64.762	47.351	1.00 32.39	B	C
ATOM	9534	CE	LYS	466	133.084	64.909	48.218	1.00 34.11	B	C
ATOM	9535	NZ	LYS	466	133.806	66.188	47.965	1.00 36.88	B	N
ATOM	9536	C	LYS	466	128.859	61.318	47.847	1.00 24.27	B	C
ATOM	9537	O	LYS	466	129.469	60.850	48.809	1.00 24.32	B	O
ATOM	9538	N	TYR	467	127.544	61.514	47.846	1.00 22.52	B	N
ATOM	9539	CA	TYR	467	126.722	61.182	49.004	1.00 23.27	B	C
ATOM	9540	CB	TYR	467	126.356	62.441	49.794	1.00 23.00	B	C
ATOM	9541	CG	TYR	467	127.527	63.237	50.292	1.00 24.92	B	C
ATOM	9542	CD1	TYR	467	128.201	64.119	49.451	1.00 25.30	B	C
ATOM	9543	CE1	TYR	467	129.301	64.841	49.902	1.00 26.01	B	C
ATOM	9544	CD2	TYR	467	127.981	63.095	51.604	1.00 26.01	B	C
ATOM	9545	CE2	TYR	467	129.079	63.811	52.064	1.00 26.37	B	C
ATOM	9546	CZ	TYR	467	129.736	64.681	51.206	1.00 26.55	B	C
ATOM	9547	OH	TYR	467	130.841	65.369	51.645	1.00 26.89	B	O
ATOM	9548	C	TYR	467	125.428	60.500	48.584	1.00 22.16	B	C
ATOM	9549	O	TYR	467	125.034	60.557	47.420	1.00 22.32	B	O
ATOM	9550	N	TYR	468	124.775	59.840	49.534	1.00 21.72	B	N
ATOM	9551	CA	TYR	468	123.492	59.208	49.251	1.00 21.47	B	C
ATOM	9552	CB	TYR	468	123.650	57.817	48.614	1.00 19.80	B	C
ATOM	9553	CG	TYR	468	124.468	56.797	49.380	1.00 19.37	B	C
ATOM	9554	CD1	TYR	468	125.844	56.683	49.184	1.00 20.24	B	C

(Continued)

FIG. 4-196

ATOM	9555	CE1	TYR	468	126.588	55.695	49.833	1.00	20.33	B C
ATOM	9556	CD2	TYR	468	123.856	55.902	50.252	1.00	19.91	B C
ATOM	9557	CE2	TYR	468	124.588	54.915	50.909	1.00	19.25	B C
ATOM	9558	CZ	TYR	468	125.951	54.816	50.695	1.00	20.72	B C
ATOM	9559	OH	TYR	468	126.674	53.845	51.349	1.00	20.60	B O
ATOM	9560	C	TYR	468	122.602	59.103	50.474	1.00	21.65	B C
ATOM	9561	O	TYR	468	123.068	58.836	51.588	1.00	21.59	B O
ATOM	9562	N	GLN	469	121.317	59.360	50.268	1.00	19.96	B N
ATOM	9563	CA	GLN	469	120.369	59.235	51.355	1.00	18.78	B C
ATOM	9564	CB	GLN	469	119.277	60.302	51.283	1.00	16.79	B C
ATOM	9565	CG	GLN	469	118.247	60.143	52.393	1.00	16.33	B C
ATOM	9566	CD	GLN	469	117.035	61.034	52.214	1.00	16.44	B C
ATOM	9567	OE1	GLN	469	116.438	61.076	51.147	1.00	18.52	B O
ATOM	9568	NE2	GLN	469	116.659	61.739	53.265	1.00	16.60	B N
ATOM	9569	C	GLN	469	119.729	57.855	51.240	1.00	18.75	B C
ATOM	9570	O	GLN	469	119.353	57.413	50.156	1.00	20.25	B O
ATOM	9571	N	LEU	470	119.641	57.160	52.359	1.00	18.03	B N
ATOM	9572	CA	LEU	470	119.013	55.862	52.383	1.00	16.05	B C
ATOM	9573	CB	LEU	470	119.871	54.860	53.153	1.00	12.88	B C
ATOM	9574	CG	LEU	470	120.920	54.116	52.334	1.00	7.18	B C
ATOM	9575	CD1	LEU	470	121.669	53.176	53.230	1.00	9.83	B C
ATOM	9576	CD2	LEU	470	120.248	53.344	51.241	1.00	5.95	B C
ATOM	9577	C	LEU	470	117.674	56.055	53.077	1.00	18.52	B C
ATOM	9578	O	LEU	470	117.573	56.769	54.082	1.00	17.50	B O
ATOM	9579	N	ARG	471	116.644	55.437	52.517	1.00	20.97	B N
ATOM	9580	CA	ARG	471	115.306	55.521	53.070	1.00	23.15	B C
ATOM	9581	CB	ARG	471	114.354	56.203	52.085	1.00	25.88	B C
ATOM	9582	CG	ARG	471	112.907	56.240	52.553	1.00	31.75	B C
ATOM	9583	CD	ARG	471	111.997	56.927	51.541	1.00	35.75	B C
ATOM	9584	NE	ARG	471	110.677	57.213	52.102	1.00	39.62	B N
ATOM	9585	CZ	ARG	471	109.737	57.920	51.478	1.00	41.33	B C
ATOM	9586	NH1	ARG	471	109.972	58.412	50.269	1.00	41.52	B N
ATOM	9587	NH2	ARG	471	108.564	58.142	52.063	1.00	40.93	B N
ATOM	9588	C	ARG	471	114.826	54.112	53.345	1.00	24.13	B C
ATOM	9589	O	ARG	471	114.604	53.323	52.425	1.00	25.84	B O
ATOM	9590	N	CYS	472	114.687	53.796	54.621	1.00	23.64	B N
ATOM	9591	CA	CYS	472	114.219	52.487	55.042	1.00	23.00	B C
ATOM	9592	C	CYS	472	112.732	52.636	55.321	1.00	21.14	B C
ATOM	9593	O	CYS	472	112.323	53.547	56.036	1.00	21.12	B O
ATOM	9594	CB	CYS	472	114.981	52.073	56.299	1.00	23.91	B C
ATOM	9595	SG	CYS	472	114.149	50.907	57.416	1.00	27.85	B S
ATOM	9596	N	SER	473	111.919	51.755	54.756	1.00	19.44	B N
ATOM	9597	CA	SER	473	110.482	51.846	54.967	1.00	18.92	B C
ATOM	9598	CB	SER	473	109.789	52.191	53.646	1.00	18.36	B C
ATOM	9599	OG	SER	473	110.141	51.261	52.642	1.00	21.93	B O
ATOM	9600	C	SER	473	109.832	50.609	55.581	1.00	17.21	B C
ATOM	9601	O	SER	473	108.615	50.465	55.530	1.00	19.59	B O
ATOM	9602	N	GLY	474	110.629	49.716	56.156	1.00	16.48	B N
ATOM	9603	CA	GLY	474	110.055	48.532	56.771	1.00	16.90	B C

(Continued)

FIG. 4-197

ATOM	9604	C	GLY	474	111.040	47.425	57.091	1.00	16.48	B C
ATOM	9605	O	GLY	474	112.149	47.403	56.563	1.00	18.05	B O
ATOM	9606	N	PRO	475	110.643	46.446	57.913	1.00	16.25	B N
ATOM	9607	CD	PRO	475	111.562	45.333	58.219	1.00	17.27	B C
ATOM	9608	CA	PRO	475	109.353	46.249	58.584	1.00	14.24	B C
ATOM	9609	CB	PRO	475	109.445	44.807	59.068	1.00	13.06	B C
ATOM	9610	CG	PRO	475	110.896	44.680	59.411	1.00	14.77	B C
ATOM	9611	C	PRO	475	109.012	47.214	59.716	1.00	14.52	B C
ATOM	9612	O	PRO	475	107.840	47.392	60.041	1.00	16.67	B O
ATOM	9613	N	GLY	476	110.023	47.818	60.331	1.00	14.14	B N
ATOM	9614	CA	GLY	476	109.770	48.750	61.415	1.00	11.62	B C
ATOM	9615	C	GLY	476	109.524	50.140	60.868	1.00	12.63	B C
ATOM	9616	O	GLY	476	109.407	50.307	59.656	1.00	12.58	B O
ATOM	9617	N	LEU	477	109.454	51.137	61.748	1.00	11.74	B N
ATOM	9618	CA	LEU	477	109.222	52.519	61.331	1.00	11.92	B C
ATOM	9619	CB	LEU	477	109.072	53.412	62.563	1.00	10.87	B C
ATOM	9620	CG	LEU	477	107.928	53.053	63.514	1.00	13.02	B C
ATOM	9621	CD1	LEU	477	107.940	54.009	64.698	1.00	12.46	B C
ATOM	9622	CD2	LEU	477	106.586	53.114	62.775	1.00	12.47	B C
ATOM	9623	C	LEU	477	110.325	53.086	60.414	1.00	13.40	B C
ATOM	9624	O	LEU	477	111.516	52.819	60.604	1.00	11.34	B O
ATOM	9625	N	PRO	478	109.931	53.894	59.414	1.00	13.58	B N
ATOM	9626	CD	PRO	478	108.541	54.283	59.121	1.00	14.52	B C
ATOM	9627	CA	PRO	478	110.852	54.510	58.455	1.00	14.07	B C
ATOM	9628	CB	PRO	478	109.962	55.495	57.705	1.00	13.81	B C
ATOM	9629	CG	PRO	478	108.638	54.795	57.702	1.00	14.19	B C
ATOM	9630	C	PRO	478	112.033	55.188	59.118	1.00	15.11	B C
ATOM	9631	O	PRO	478	111.892	55.820	60.163	1.00	16.31	B O
ATOM	9632	N	LEU	479	113.197	55.048	58.490	1.00	16.04	B N
ATOM	9633	CA	LEU	479	114.444	55.621	58.982	1.00	15.01	B C
ATOM	9634	CB	LEU	479	115.279	54.528	59.657	1.00	13.83	B C
ATOM	9635	CG	LEU	479	116.675	54.866	60.179	1.00	12.46	B C
ATOM	9636	CD1	LEU	479	116.606	55.990	61.189	1.00	13.23	B C
ATOM	9637	CD2	LEU	479	117.268	53.631	60.813	1.00	12.22	B C
ATOM	9638	C	LEU	479	115.204	56.217	57.801	1.00	14.97	B C
ATOM	9639	O	LEU	479	115.395	55.557	56.783	1.00	15.80	B O
ATOM	9640	N	TYR	480	115.627	57.468	57.940	1.00	15.76	B N
ATOM	9641	CA	TYR	480	116.350	58.165	56.883	1.00	16.51	B C
ATOM	9642	CB	TYR	480	115.631	59.471	56.517	1.00	18.80	B C
ATOM	9643	CG	TYR	480	114.210	59.293	56.024	1.00	20.33	B C
ATOM	9644	CD1	TYR	480	113.910	59.364	54.664	1.00	22.57	B C
ATOM	9645	CE1	TYR	480	112.604	59.161	54.196	1.00	23.68	B C
ATOM	9646	CD2	TYR	480	113.170	59.019	56.915	1.00	20.23	B C
ATOM	9647	CE2	TYR	480	111.870	58.815	56.464	1.00	22.45	B C
ATOM	9648	CZ	TYR	480	111.591	58.885	55.102	1.00	24.15	B C
ATOM	9649	OH	TYR	480	110.312	58.658	54.648	1.00	24.41	B O
ATOM	9650	C	TYR	480	117.744	58.483	57.379	1.00	15.96	B C
ATOM	9651	O	TYR	480	117.910	59.005	58.482	1.00	15.89	B O
ATOM	9652	N	THR	481	118.743	58.179	56.559	1.00	15.76	B N

(Continued)

FIG. 4-198

ATOM	9653	CA	THR	481	120.129	58.431	56.924	1.00	15.65	B	C
ATOM	9654	CB	THR	481	120.774	57.163	57.480	1.00	14.54	B	C
ATOM	9655	OG1	THR	481	120.459	56.065	56.622	1.00	18.10	B	O
ATOM	9656	CG2	THR	481	120.256	56.864	58.858	1.00	15.87	B	C
ATOM	9657	C	THR	481	120.964	58.919	55.752	1.00	16.24	B	C
ATOM	9658	O	THR	481	120.650	58.648	54.602	1.00	16.93	B	O
ATOM	9659	N	LEU	482	122.035	59.646	56.058	1.00	18.90	B	N
ATOM	9660	CA	LEU	482	122.937	60.166	55.038	1.00	19.21	B	C
ATOM	9661	CB	LEU	482	123.203	61.653	55.279	1.00	20.10	B	C
ATOM	9662	CG	LEU	482	123.765	62.439	54.092	1.00	21.90	B	C
ATOM	9663	CD1	LEU	482	122.736	62.475	52.975	1.00	21.10	B	C
ATOM	9664	CD2	LEU	482	124.115	63.856	54.525	1.00	22.66	B	C
ATOM	9665	C	LEU	482	124.243	59.373	55.121	1.00	19.39	B	C
ATOM	9666	O	LEU	482	124.684	59.013	56.210	1.00	20.79	B	O
ATOM	9667	N	HIS	483	124.849	59.096	53.970	1.00	18.33	B	N
ATOM	9668	CA	HIS	483	126.090	58.332	53.903	1.00	16.79	B	C
ATOM	9669	CB	HIS	483	125.791	56.894	53.488	1.00	14.55	B	C
ATOM	9670	CG	HIS	483	124.697	56.245	54.276	1.00	14.89	B	C
ATOM	9671	CD2	HIS	483	123.358	56.434	54.264	1.00	15.13	B	C
ATOM	9672	ND1	HIS	483	124.933	55.258	55.211	1.00	16.09	B	N
ATOM	9673	CE1	HIS	483	123.788	54.867	55.736	1.00	13.84	B	C
ATOM	9674	NE2	HIS	483	122.816	55.565	55.178	1.00	14.31	B	N
ATOM	9675	C	HIS	483	127.043	58.939	52.868	1.00	18.94	B	C
ATOM	9676	O	HIS	483	126.617	59.665	51.961	1.00	19.56	B	O
ATOM	9677	N	SER	484	128.333	58.645	53.003	1.00	19.52	B	N
ATOM	9678	CA	SER	484	129.318	59.131	52.040	1.00	21.33	B	C
ATOM	9679	CB	SER	484	130.520	59.779	52.738	1.00	21.77	B	C
ATOM	9680	OG	SER	484	131.351	58.803	53.344	1.00	24.25	B	O
ATOM	9681	C	SER	484	129.774	57.907	51.259	1.00	21.22	B	C
ATOM	9682	O	SER	484	129.942	56.827	51.830	1.00	19.26	B	O
ATOM	9683	N	SER	485	129.979	58.076	49.960	1.00	22.12	B	N
ATOM	9684	CA	SER	485	130.389	56.967	49.110	1.00	25.62	B	C
ATOM	9685	CB	SER	485	130.095	57.301	47.645	1.00	26.28	B	C
ATOM	9686	OG	SER	485	128.715	57.552	47.444	1.00	30.40	B	O
ATOM	9687	C	SER	485	131.840	56.495	49.221	1.00	26.33	B	C
ATOM	9688	O	SER	485	132.097	55.300	49.138	1.00	27.23	B	O
ATOM	9689	N	VAL	486	132.781	57.416	49.407	1.00	28.07	B	N
ATOM	9690	CA	VAL	486	134.194	57.056	49.468	1.00	29.41	B	C
ATOM	9691	CB	VAL	486	135.084	58.284	49.798	1.00	30.37	B	C
ATOM	9692	CG1	VAL	486	134.786	58.797	51.192	1.00	31.49	B	C
ATOM	9693	CG2	VAL	486	136.553	57.909	49.665	1.00	30.81	B	C
ATOM	9694	C	VAL	486	134.507	55.929	50.442	1.00	30.57	B	C
ATOM	9695	O	VAL	486	135.269	55.016	50.119	1.00	31.62	B	O
ATOM	9696	N	ASN	487	133.922	55.979	51.630	1.00	30.95	B	N
ATOM	9697	CA	ASN	487	134.159	54.928	52.610	1.00	31.75	B	C
ATOM	9698	CB	ASN	487	134.888	55.498	53.833	1.00	35.87	B	C
ATOM	9699	CG	ASN	487	136.336	55.868	53.537	1.00	38.55	B	C
ATOM	9700	OD1	ASN	487	136.838	56.895	54.014	1.00	38.47	B	O
ATOM	9701	ND2	ASN	487	137.019	55.026	52.759	1.00	37.49	B	N

(Continued)

FIG. 4-199

ATOM	9702	C	ASN	487	132.850	54.288	53.048	1.00	30.74	B C
ATOM	9703	O	ASN	487	132.830	53.486	53.982	1.00	31.45	B O
ATOM	9704	N	ASP	488	131.762	54.633	52.364	1.00	28.68	B N
ATOM	9705	CA	ASP	488	130.449	54.108	52.707	1.00	26.66	B C
ATOM	9706	CB	ASP	488	130.331	52.636	52.313	1.00	27.90	B C
ATOM	9707	CG	ASP	488	130.253	52.440	50.816	1.00	29.72	B C
ATOM	9708	OD1	ASP	488	129.461	53.146	50.161	1.00	31.30	B O
ATOM	9709	OD2	ASP	488	130.977	51.572	50.290	1.00	32.18	B O
ATOM	9710	C	ASP	488	130.219	54.259	54.204	1.00	25.72	B C
ATOM	9711	O	ASP	488	129.654	53.382	54.856	1.00	24.30	B O
ATOM	9712	N	LYS	489	130.669	55.378	54.754	1.00	25.25	B N
ATOM	9713	CA	LYS	489	130.503	55.610	56.176	1.00	24.10	B C
ATOM	9714	CB	LYS	489	131.607	56.529	56.705	1.00	24.94	B C
ATOM	9715	CG	LYS	489	131.622	57.898	56.069	1.00	29.19	B C
ATOM	9716	CD	LYS	489	132.805	58.719	56.560	1.00	33.11	B C
ATOM	9717	CE	LYS	489	132.771	60.133	55.995	1.00	34.94	B C
ATOM	9718	NZ	LYS	489	133.883	60.959	56.541	1.00	39.70	B N
ATOM	9719	C	LYS	489	129.140	56.216	56.449	1.00	22.29	B C
ATOM	9720	O	LYS	489	128.556	56.872	55.585	1.00	20.15	B O
ATOM	9721	N	GLY	490	128.639	55.968	57.657	1.00	22.04	B N
ATOM	9722	CA	GLY	490	127.352	56.487	58.067	1.00	20.03	B C
ATOM	9723	C	GLY	490	127.545	57.854	58.676	1.00	20.18	B C
ATOM	9724	O	GLY	490	128.091	57.989	59.769	1.00	20.54	B O
ATOM	9725	N	LEU	491	127.092	58.876	57.965	1.00	19.44	B N
ATOM	9726	CA	LEU	491	127.234	60.233	58.440	1.00	19.54	B C
ATOM	9727	CB	LEU	491	127.032	61.203	57.283	1.00	20.53	B C
ATOM	9728	CG	LEU	491	128.153	61.167	56.242	1.00	18.39	B C
ATOM	9729	CD1	LEU	491	127.831	62.089	55.090	1.00	19.23	B C
ATOM	9730	CD2	LEU	491	129.441	61.577	56.898	1.00	18.31	B C
ATOM	9731	C	LEU	491	126.287	60.555	59.586	1.00	20.91	B C
ATOM	9732	O	LEU	491	126.735	60.780	60.713	1.00	22.15	B O
ATOM	9733	N	ARG	492	124.984	60.566	59.316	1.00	20.73	B N
ATOM	9734	CA	ARG	492	124.020	60.881	60.364	1.00	20.06	B C
ATOM	9735	CB	ARG	492	124.036	62.382	60.644	1.00	20.71	B C
ATOM	9736	CG	ARG	492	123.393	63.244	59.568	1.00	20.08	B C
ATOM	9737	CD	ARG	492	123.759	64.698	59.798	1.00	21.15	B C
ATOM	9738	NE	ARG	492	125.193	64.888	59.625	1.00	21.60	B N
ATOM	9739	CZ	ARG	492	125.765	65.192	58.466	1.00	23.12	B C
ATOM	9740	NH1	ARG	492	125.022	65.360	57.380	1.00	24.47	B N
ATOM	9741	NH2	ARG	492	127.083	65.286	58.383	1.00	23.72	B N
ATOM	9742	C	ARG	492	122.585	60.443	60.085	1.00	21.47	B C
ATOM	9743	O	ARG	492	122.247	59.998	58.983	1.00	21.32	B O
ATOM	9744	N	VAL	493	121.746	60.580	61.107	1.00	20.97	B N
ATOM	9745	CA	VAL	493	120.344	60.211	61.018	1.00	21.38	B C
ATOM	9746	CB	VAL	493	119.883	59.537	62.325	1.00	22.41	B C
ATOM	9747	CG1	VAL	493	118.402	59.215	62.247	1.00	23.17	B C
ATOM	9748	CG2	VAL	493	120.698	58.266	62.574	1.00	20.83	B C
ATOM	9749	C	VAL	493	119.497	61.456	60.763	1.00	21.55	B C
ATOM	9750	O	VAL	493	119.462	62.371	61.580	1.00	21.85	B O

FIG. 4-200 (Continued)

ATOM	9751	N	LEU	494	118.811	61.485	59.626	1.00	21.18	B	N
ATOM	9752	CA	LEU	494	117.974	62.626	59.264	1.00	19.43	B	C
ATOM	9753	CB	LEU	494	117.782	62.660	57.742	1.00	19.57	B	C
ATOM	9754	CG	LEU	494	119.101	62.610	56.953	1.00	21.60	B	C
ATOM	9755	CD1	LEU	494	118.832	62.502	55.456	1.00	20.38	B	C
ATOM	9756	CD2	LEU	494	119.929	63.851	57.271	1.00	19.91	B	C
ATOM	9757	C	LEU	494	116.615	62.576	59.964	1.00	18.58	B	C
ATOM	9758	O	LEU	494	116.111	63.595	60.443	1.00	18.81	B	O
ATOM	9759	N	GLU	495	116.025	61.390	60.022	1.00	16.24	B	N
ATOM	9760	CA	GLU	495	114.729	61.225	60.659	1.00	16.44	B	C
ATOM	9761	CB	GLU	495	113.612	61.651	59.698	1.00	17.53	B	C
ATOM	9762	CG	GLU	495	112.217	61.506	60.268	1.00	19.67	B	C
ATOM	9763	CD	GLU	495	111.984	62.399	61.476	1.00	22.97	B	C
ATOM	9764	OE1	GLU	495	112.023	63.642	61.315	1.00	22.51	B	O
ATOM	9765	OE2	GLU	495	111.767	61.858	62.585	1.00	22.70	B	O
ATOM	9766	C	GLU	495	114.553	59.770	61.059	1.00	14.79	B	C
ATOM	9767	O	GLU	495	114.678	58.875	60.236	1.00	15.37	B	O
ATOM	9768	N	ASP	496	114.264	59.534	62.329	1.00	14.29	B	N
ATOM	9769	CA	ASP	496	114.100	58.175	62.811	1.00	13.80	B	C
ATOM	9770	CB	ASP	496	115.128	57.867	63.909	1.00	14.57	B	C
ATOM	9771	CG	ASP	496	114.938	58.715	65.154	1.00	12.87	B	C
ATOM	9772	OD1	ASP	496	113.849	59.297	65.330	1.00	12.34	B	O
ATOM	9773	OD2	ASP	496	115.882	58.789	65.971	1.00	13.20	B	O
ATOM	9774	C	ASP	496	112.711	57.895	63.341	1.00	13.42	B	C
ATOM	9775	O	ASP	496	112.453	56.808	63.845	1.00	14.36	B	O
ATOM	9776	N	ASN	497	111.820	58.871	63.234	1.00	12.87	B	N
ATOM	9777	CA	ASN	497	110.460	58.697	63.717	1.00	15.91	B	C
ATOM	9778	CB	ASN	497	109.736	57.666	62.855	1.00	16.28	B	C
ATOM	9779	CG	ASN	497	109.227	58.255	61.564	1.00	20.09	B	C
ATOM	9780	OD1	ASN	497	108.308	59.077	61.570	1.00	18.95	B	O
ATOM	9781	ND2	ASN	497	109.829	57.853	60.443	1.00	19.49	B	N
ATOM	9782	C	ASN	497	110.373	58.292	65.193	1.00	17.71	B	C
ATOM	9783	O	ASN	497	109.591	57.420	65.564	1.00	19.20	B	O
ATOM	9784	N	SER	498	111.179	58.924	66.035	1.00	18.90	B	N
ATOM	9785	CA	SER	498	111.147	58.627	67.458	1.00	20.75	B	C
ATOM	9786	CB	SER	498	112.210	59.454	68.191	1.00	20.93	B	C
ATOM	9787	OG	SER	498	113.491	58.878	68.037	1.00	23.33	B	O
ATOM	9788	C	SER	498	109.760	58.956	68.020	1.00	20.54	B	C
ATOM	9789	O	SER	498	109.183	58.184	68.777	1.00	20.68	B	O
ATOM	9790	N	ALA	499	109.238	60.113	67.637	1.00	20.46	B	N
ATOM	9791	CA	ALA	499	107.935	60.564	68.087	1.00	21.87	B	C
ATOM	9792	CB	ALA	499	107.577	61.858	67.391	1.00	21.73	B	C
ATOM	9793	C	ALA	499	106.859	59.520	67.822	1.00	23.85	B	C
ATOM	9794	O	ALA	499	106.279	58.961	68.758	1.00	25.77	B	O
ATOM	9795	N	LEU	500	106.588	59.262	66.546	1.00	23.83	B	N
ATOM	9796	CA	LEU	500	105.568	58.286	66.176	1.00	24.31	B	C
ATOM	9797	CB	LEU	500	105.642	57.958	64.678	1.00	22.08	B	C
ATOM	9798	CG	LEU	500	104.618	56.922	64.201	1.00	20.35	B	C
ATOM	9799	CD1	LEU	500	103.200	57.349	64.570	1.00	19.30	B	C

(Continued)

FIG. 4-201

ATOM	9800	CD2	LEU	500	104.744	56.763	62.721	1.00	19.60	B	C
ATOM	9801	C	LEU	500	105.745	57.009	66.974	1.00	24.37	B	C
ATOM	9802	O	LEU	500	104.777	56.407	67.437	1.00	24.06	B	O
ATOM	9803	N	ASP	501	106.997	56.601	67.131	1.00	26.06	B	N
ATOM	9804	CA	ASP	501	107.301	55.392	67.868	1.00	26.81	B	C
ATOM	9805	CB	ASP	501	108.793	55.120	67.844	1.00	25.74	B	C
ATOM	9806	CG	ASP	501	109.145	53.848	68.556	1.00	26.66	B	C
ATOM	9807	OD1	ASP	501	108.621	52.789	68.164	1.00	29.87	B	O
ATOM	9808	OD2	ASP	501	109.939	53.901	69.512	1.00	30.35	B	O
ATOM	9809	C	ASP	501	106.827	55.484	69.309	1.00	27.60	B	C
ATOM	9810	O	ASP	501	106.296	54.520	69.855	1.00	27.99	B	O
ATOM	9811	N	LYS	502	107.011	56.645	69.924	1.00	28.69	B	N
ATOM	9812	CA	LYS	502	106.591	56.819	71.301	1.00	31.12	B	C
ATOM	9813	CB	LYS	502	107.034	58.184	71.834	1.00	33.97	B	C
ATOM	9814	CG	LYS	502	106.507	58.484	73.239	1.00	35.56	B	C
ATOM	9815	CD	LYS	502	106.991	59.822	73.766	1.00	36.56	B	C
ATOM	9816	CE	LYS	502	106.308	60.162	75.083	1.00	37.47	B	C
ATOM	9817	NZ	LYS	502	106.514	59.098	76.104	1.00	38.22	B	N
ATOM	9818	C	LYS	502	105.080	56.679	71.426	1.00	31.95	B	C
ATOM	9819	O	LYS	502	104.592	55.937	72.276	1.00	33.49	B	O
ATOM	9820	N	MET	503	104.338	57.380	70.574	1.00	32.49	B	N
ATOM	9821	CA	MET	503	102.881	57.307	70.624	1.00	33.25	B	C
ATOM	9822	CB	MET	503	102.254	58.342	69.690	1.00	35.92	B	C
ATOM	9823	CG	MET	503	102.518	59.768	70.131	1.00	42.44	B	C
ATOM	9824	SD	MET	503	101.702	60.993	69.105	1.00	52.16	B	S
ATOM	9825	CE	MET	503	100.419	61.581	70.243	1.00	50.62	B	C
ATOM	9826	C	MET	503	102.361	55.927	70.279	1.00	31.30	B	C
ATOM	9827	O	MET	503	101.476	55.413	70.954	1.00	31.92	B	O
ATOM	9828	N	LEU	504	102.914	55.318	69.238	1.00	30.00	B	N
ATOM	9829	CA	LEU	504	102.471	53.993	68.836	1.00	29.48	B	C
ATOM	9830	CB	LEU	504	103.276	53.517	67.624	1.00	28.63	B	C
ATOM	9831	CG	LEU	504	102.517	53.477	66.290	1.00	29.55	B	C
ATOM	9832	CD1	LEU	504	101.696	54.750	66.106	1.00	28.10	B	C
ATOM	9833	CD2	LEU	504	103.508	53.300	65.143	1.00	27.73	B	C
ATOM	9834	C	LEU	504	102.581	52.998	69.986	1.00	29.56	B	C
ATOM	9835	O	LEU	504	101.880	51.991	70.016	1.00	27.71	B	O
ATOM	9836	N	GLN	505	103.458	53.291	70.938	1.00	31.52	B	N
ATOM	9837	CA	GLN	505	103.641	52.425	72.096	1.00	33.96	B	C
ATOM	9838	CB	GLN	505	104.829	52.915	72.927	1.00	36.96	B	C
ATOM	9839	CG	GLN	505	106.167	52.836	72.200	1.00	42.44	B	C
ATOM	9840	CD	GLN	505	106.652	51.408	71.996	1.00	43.93	B	C
ATOM	9841	OE1	GLN	505	107.079	50.746	72.943	1.00	45.80	B	O
ATOM	9842	NE2	GLN	505	106.581	50.925	70.758	1.00	45.49	B	N
ATOM	9843	C	GLN	505	102.375	52.393	72.960	1.00	33.38	B	C
ATOM	9844	O	GLN	505	102.104	51.400	73.634	1.00	32.77	B	O
ATOM	9845	N	ASN	506	101.607	53.482	72.928	1.00	32.89	B	N
ATOM	9846	CA	ASN	506	100.362	53.590	73.694	1.00	32.38	B	C
ATOM	9847	CB	ASN	506	99.997	55.062	73.937	1.00	35.05	B	C
ATOM	9848	CG	ASN	506	101.108	55.848	74.629	1.00	39.34	B	C

(Continued)

FIG. 4-202

ATOM	9849	OD1	ASN	506	101.426	55.608	75.799	1.00	41.09	B	O
ATOM	9850	ND2	ASN	506	101.703	56.796	73.903	1.00	39.00	B	N
ATOM	9851	C	ASN	506	99.208	52.933	72.936	1.00	30.32	B	C
ATOM	9852	O	ASN	506	98.058	52.995	73.377	1.00	30.93	B	O
ATOM	9853	N	VAL	507	99.516	52.305	71.803	1.00	26.94	B	N
ATOM	9854	CA	VAL	507	98.497	51.664	70.974	1.00	25.15	B	C
ATOM	9855	CB	VAL	507	98.456	52.293	69.545	1.00	23.88	B	C
ATOM	9856	CG1	VAL	507	97.287	51.730	68.755	1.00	21.31	B	C
ATOM	9857	CG2	VAL	507	98.344	53.811	69.633	1.00	22.11	B	C
ATOM	9858	C	VAL	507	98.717	50.164	70.825	1.00	25.62	B	C
ATOM	9859	O	VAL	507	99.838	49.676	70.945	1.00	26.78	B	O
ATOM	9860	N	GLN	508	97.639	49.432	70.567	1.00	25.89	B	N
ATOM	9861	CA	GLN	508	97.730	47.992	70.381	1.00	25.14	B	C
ATOM	9862	CB	GLN	508	96.486	47.281	70.917	1.00	27.32	B	C
ATOM	9863	CG	GLN	508	96.322	47.397	72.422	1.00	29.65	B	C
ATOM	9864	CD	GLN	508	95.190	46.543	72.958	1.00	30.81	B	C
ATOM	9865	OE1	GLN	508	95.208	45.312	72.836	1.00	31.32	B	O
ATOM	9866	NE2	GLN	508	94.199	47.190	73.561	1.00	29.92	B	N
ATOM	9867	C	GLN	508	97.869	47.740	68.899	1.00	23.65	B	C
ATOM	9868	O	GLN	508	96.944	47.277	68.241	1.00	22.60	B	O
ATOM	9869	N	MET	509	99.046	48.063	68.385	1.00	23.78	B	N
ATOM	9870	CA	MET	509	99.347	47.895	66.980	1.00	23.48	B	C
ATOM	9871	CB	MET	509	100.667	48.578	66.655	1.00	23.41	B	C
ATOM	9872	CG	MET	509	100.586	50.070	66.782	1.00	26.19	B	C
ATOM	9873	SD	MET	509	99.279	50.681	65.719	1.00	28.03	B	S
ATOM	9874	CE	MET	509	100.207	50.994	64.209	1.00	25.78	B	C
ATOM	9875	C	MET	509	99.425	46.440	66.579	1.00	23.44	B	C
ATOM	9876	O	MET	509	99.902	45.599	67.343	1.00	24.15	B	O
ATOM	9877	N	PRO	510	98.951	46.121	65.365	1.00	22.69	B	N
ATOM	9878	CD	PRO	510	98.308	47.027	64.395	1.00	22.87	B	C
ATOM	9879	CA	PRO	510	98.974	44.751	64.854	1.00	21.97	B	C
ATOM	9880	CB	PRO	510	97.987	44.807	63.701	1.00	22.62	B	C
ATOM	9881	CG	PRO	510	98.248	46.171	63.141	1.00	22.72	B	C
ATOM	9882	C	PRO	510	100.381	44.434	64.379	1.00	21.20	B	C
ATOM	9883	O	PRO	510	101.249	45.301	64.353	1.00	19.97	B	O
ATOM	9884	N	SER	511	100.605	43.188	63.997	1.00	22.07	B	N
ATOM	9885	CA	SER	511	101.916	42.782	63.521	1.00	23.02	B	C
ATOM	9886	CB	SER	511	102.481	41.654	64.392	1.00	23.03	B	C
ATOM	9887	OG	SER	511	101.653	40.500	64.358	1.00	26.12	B	O
ATOM	9888	C	SER	511	101.773	42.299	62.094	1.00	23.35	B	C
ATOM	9889	O	SER	511	100.659	42.168	61.583	1.00	24.92	B	O
ATOM	9890	N	LYS	512	102.906	42.035	61.458	1.00	22.83	B	N
ATOM	9891	CA	LYS	512	102.916	41.556	60.094	1.00	22.46	B	C
ATOM	9892	CB	LYS	512	103.490	42.615	59.168	1.00	21.81	B	C
ATOM	9893	CG	LYS	512	103.494	42.209	57.705	1.00	23.24	B	C
ATOM	9894	CD	LYS	512	103.820	43.411	56.851	1.00	24.28	B	C
ATOM	9895	CE	LYS	512	103.824	43.080	55.393	1.00	23.13	B	C
ATOM	9896	NZ	LYS	512	104.160	44.299	54.622	1.00	24.52	B	N
ATOM	9897	C	LYS	512	103.742	40.289	59.993	1.00	22.87	B	C

(Continued)

FIG. 4-203

ATOM	9898	O	LYS	512	104.803	40.180	60.585	1.00 23.26	B	O
ATOM	9899	N	LYS	513	103.235	39.331	59.235	1.00 24.10	B	N
ATOM	9900	CA	LYS	513	103.910	38.069	59.039	1.00 24.49	B	C
ATOM	9901	CB	LYS	513	103.046	36.923	59.566	1.00 25.52	B	C
ATOM	9902	CG	LYS	513	103.522	35.537	59.148	1.00 26.69	B	C
ATOM	9903	CD	LYS	513	102.493	34.471	59.522	1.00 30.85	B	C
ATOM	9904	CE	LYS	513	102.805	33.124	58.866	1.00 33.37	B	C
ATOM	9905	NZ	LYS	513	104.131	32.573	59.287	1.00 36.04	B	N
ATOM	9906	C	LYS	513	104.143	37.888	57.552	1.00 25.44	B	C
ATOM	9907	O	LYS	513	103.196	37.871	56.763	1.00 27.00	B	O
ATOM	9908	N	LEU	514	105.409	37.771	57.171	1.00 24.62	B	N
ATOM	9909	CA	LEU	514	105.775	37.561	55.783	1.00 22.99	B	C
ATOM	9910	CB	LEU	514	106.870	38.536	55.380	1.00 22.15	B	C
ATOM	9911	CG	LEU	514	107.307	38.465	53.925	1.00 21.19	B	C
ATOM	9912	CD1	LEU	514	106.125	38.790	53.029	1.00 19.85	B	C
ATOM	9913	CD2	LEU	514	108.438	39.435	53.701	1.00 18.42	B	C
ATOM	9914	C	LEU	514	106.292	36.132	55.708	1.00 24.30	B	C
ATOM	9915	O	LEU	514	107.123	35.725	56.519	1.00 24.87	B	O
ATOM	9916	N	ASP	515	105.804	35.361	54.747	1.00 25.31	B	N
ATOM	9917	CA	ASP	515	106.233	33.975	54.634	1.00 26.30	B	C
ATOM	9918	CB	ASP	515	105.599	33.156	55.757	1.00 28.58	B	C
ATOM	9919	CG	ASP	515	106.403	31.929	56.108	1.00 30.08	B	C
ATOM	9920	OD1	ASP	515	107.209	31.474	55.272	1.00 31.89	B	O
ATOM	9921	OD2	ASP	515	106.216	31.409	57.224	1.00 33.36	B	O
ATOM	9922	C	ASP	515	105.805	33.414	53.282	1.00 26.17	B	C
ATOM	9923	O	ASP	515	105.343	34.157	52.417	1.00 26.57	B	O
ATOM	9924	N	PHE	516	105.940	32.104	53.103	1.00 25.46	B	N
ATOM	9925	CA	PHE	516	105.571	31.496	51.838	1.00 25.82	B	C
ATOM	9926	CB	PHE	516	106.792	31.384	50.930	1.00 23.83	B	C
ATOM	9927	CG	PHE	516	107.811	30.395	51.413	1.00 22.29	B	C
ATOM	9928	CD1	PHE	516	108.896	30.808	52.176	1.00 22.68	B	C
ATOM	9929	CD2	PHE	516	107.678	29.042	51.119	1.00 21.58	B	C
ATOM	9930	CE1	PHE	516	109.836	29.885	52.642	1.00 21.89	B	C
ATOM	9931	CE2	PHE	516	108.609	28.113	51.579	1.00 21.19	B	C
ATOM	9932	CZ	PHE	516	109.689	28.536	52.342	1.00 20.70	B	C
ATOM	9933	C	PHE	516	104.955	30.117	51.954	1.00 26.95	B	C
ATOM	9934	O	PHE	516	105.063	29.452	52.980	1.00 28.94	B	O
ATOM	9935	N	ILE	517	104.307	29.707	50.872	1.00 27.35	B	N
ATOM	9936	CA	ILE	517	103.697	28.398	50.755	1.00 28.12	B	C
ATOM	9937	CB	ILE	517	102.155	28.470	50.729	1.00 26.53	B	C
ATOM	9938	CG2	ILE	517	101.645	29.073	52.016	1.00 27.39	B	C
ATOM	9939	CG1	ILE	517	101.682	29.296	49.537	1.00 27.43	B	C
ATOM	9940	CD1	ILE	517	100.175	29.486	49.486	1.00 26.37	B	C
ATOM	9941	C	ILE	517	104.202	27.896	49.411	1.00 30.13	B	C
ATOM	9942	O	ILE	517	104.575	28.697	48.551	1.00 29.21	B	O
ATOM	9943	N	ILE	518	104.239	26.581	49.228	1.00 33.16	B	N
ATOM	9944	CA	ILE	518	104.709	26.029	47.969	1.00 36.01	B	C
ATOM	9945	CB	ILE	518	105.680	24.867	48.190	1.00 36.84	B	C
ATOM	9946	CG2	ILE	518	106.133	24.311	46.845	1.00 36.94	B	C

(Continued)

FIG. 4-204

ATOM	9947	CG1	ILE	518	106.884	25.349	49.000	1.00	38.21	B C
ATOM	9948	CD1	ILE	518	107.976	24.296	49.169	1.00	40.77	B C
ATOM	9949	C	ILE	518	103.558	25.534	47.114	1.00	37.38	B C
ATOM	9950	O	ILE	518	102.581	25.000	47.624	1.00	38.97	B O
ATOM	9951	N	LEU	519	103.679	25.730	45.808	1.00	39.11	B N
ATOM	9952	CA	LEU	519	102.663	25.294	44.863	1.00	40.68	B C
ATOM	9953	CB	LEU	519	101.753	26.461	44.474	1.00	39.71	B C
ATOM	9954	CG	LEU	519	100.989	27.144	45.612	1.00	39.82	B C
ATOM	9955	CD1	LEU	519	100.051	28.205	45.045	1.00	39.14	B C
ATOM	9956	CD2	LEU	519	100.194	26.107	46.381	1.00	40.51	B C
ATOM	9957	C	LEU	519	103.388	24.763	43.637	1.00	42.22	B C
ATOM	9958	O	LEU	519	104.028	25.524	42.910	1.00	42.60	B O
ATOM	9959	N	ASN	520	103.299	23.453	43.419	1.00	43.53	B N
ATOM	9960	CA	ASN	520	103.963	22.824	42.285	1.00	44.57	B C
ATOM	9961	CB	ASN	520	103.385	23.337	40.964	1.00	46.39	B C
ATOM	9962	CG	ASN	520	102.045	22.726	40.639	1.00	48.97	B C
ATOM	9963	OD1	ASN	520	101.168	22.634	41.498	1.00	50.54	B O
ATOM	9964	ND2	ASN	520	101.871	22.312	39.386	1.00	50.46	B N
ATOM	9965	C	ASN	520	105.452	23.114	42.316	1.00	44.13	B C
ATOM	9966	O	ASN	520	106.004	23.637	41.348	1.00	44.64	B O
ATOM	9967	N	GLU	521	106.097	22.791	43.431	1.00	44.10	B N
ATOM	9968	CA	GLU	521	107.536	23.012	43.562	1.00	45.15	B C
ATOM	9969	CB	GLU	521	108.272	22.387	42.368	1.00	49.07	B C
ATOM	9970	CG	GLU	521	109.775	22.642	42.339	1.00	54.49	B C
ATOM	9971	CD	GLU	521	110.401	22.274	41.004	1.00	58.04	B C
ATOM	9972	OE1	GLU	521	110.307	21.091	40.597	1.00	59.07	B O
ATOM	9973	OE2	GLU	521	110.986	23.176	40.361	1.00	59.78	B O
ATOM	9974	C	GLU	521	107.922	24.486	43.661	1.00	42.18	B C
ATOM	9975	O	GLU	521	109.034	24.810	44.072	1.00	42.85	B O
ATOM	9976	N	THR	522	107.014	25.378	43.283	1.00	38.59	B N
ATOM	9977	CA	THR	522	107.314	26.800	43.333	1.00	34.63	B C
ATOM	9978	CB	THR	522	106.605	27.566	42.198	1.00	34.21	B C
ATOM	9979	OG1	THR	522	107.109	27.115	40.936	1.00	34.20	B O
ATOM	9980	CG2	THR	522	106.866	29.057	42.318	1.00	33.69	B C
ATOM	9981	C	THR	522	106.959	27.441	44.664	1.00	32.83	B C
ATOM	9982	O	THR	522	106.028	27.027	45.350	1.00	32.75	B O
ATOM	9983	N	LYS	523	107.727	28.464	45.011	1.00	31.06	B N
ATOM	9984	CA	LYS	523	107.559	29.206	46.245	1.00	29.30	B C
ATOM	9985	CB	LYS	523	108.940	29.490	46.838	1.00	29.00	B C
ATOM	9986	CG	LYS	523	108.934	30.329	48.089	1.00	31.42	B C
ATOM	9987	CD	LYS	523	110.344	30.567	48.607	1.00	32.07	B C
ATOM	9988	CE	LYS	523	111.045	29.265	48.943	1.00	33.13	B C
ATOM	9989	NZ	LYS	523	112.388	29.512	49.545	1.00	35.72	B N
ATOM	9990	C	LYS	523	106.819	30.519	45.984	1.00	28.56	B C
ATOM	9991	O	LYS	523	107.256	31.335	45.173	1.00	29.36	B O
ATOM	9992	N	PHE	524	105.692	30.711	46.661	1.00	25.40	B N
ATOM	9993	CA	PHE	524	104.912	31.934	46.517	1.00	22.61	B C
ATOM	9994	CB	PHE	524	103.529	31.637	45.929	1.00	22.69	B C
ATOM	9995	CG	PHE	524	103.565	31.136	44.516	1.00	21.75	B C

(Continued)

FIG. 4-205

ATOM	9996	CD1	PHE	524	103.626	29.773	44.247	1.00	22.19	B C
ATOM	9997	CD2	PHE	524	103.541	32.031	43.448	1.00	22.40	B C
ATOM	9998	CE1	PHE	524	103.662	29.306	42.935	1.00	22.45	B C
ATOM	9999	CE2	PHE	524	103.576	31.579	42.131	1.00	22.01	B C
ATOM	10000	CZ	PHE	524	103.637	30.213	41.871	1.00	22.70	B C
ATOM	10001	C	PHE	524	104.765	32.593	47.890	1.00	20.73	B C
ATOM	10002	O	PHE	524	104.416	31.941	48.875	1.00	19.19	B O
ATOM	10003	N	TRP	525	105.016	33.892	47.950	1.00	18.35	B N
ATOM	10004	CA	TRP	525	104.950	34.600	49.216	1.00	17.31	B C
ATOM	10005	CB	TRP	525	106.059	35.646	49.274	1.00	16.81	B C
ATOM	10006	CG	TRP	525	107.442	35.092	49.191	1.00	16.14	B C
ATOM	10007	CD2	TRP	525	108.393	35.031	50.253	1.00	14.70	B C
ATOM	10008	CE2	TRP	525	109.574	34.454	49.726	1.00	16.70	B C
ATOM	10009	CE3	TRP	525	108.366	35.411	51.602	1.00	14.22	B C
ATOM	10010	CD1	TRP	525	108.062	34.560	48.086	1.00	15.59	B C
ATOM	10011	NE1	TRP	525	109.344	34.176	48.403	1.00	14.99	B N
ATOM	10012	CZ2	TRP	525	110.722	34.247	50.508	1.00	17.11	B C
ATOM	10013	CZ3	TRP	525	109.506	35.204	52.381	1.00	14.40	B C
ATOM	10014	CH2	TRP	525	110.668	34.627	51.829	1.00	15.16	B C
ATOM	10015	C	TRP	525	103.630	35.280	49.554	1.00	17.78	B C
ATOM	10016	O	TRP	525	102.880	35.719	48.675	1.00	17.96	B O
ATOM	10017	N	TYR	526	103.361	35.368	50.849	1.00	16.97	B N
ATOM	10018	CA	TYR	526	102.165	36.034	51.341	1.00	18.30	B C
ATOM	10019	CB	TYR	526	101.053	35.030	51.652	1.00	19.10	B C
ATOM	10020	CG	TYR	526	101.369	34.076	52.778	1.00	21.69	B C
ATOM	10021	CD1	TYR	526	101.132	34.422	54.110	1.00	23.52	B C
ATOM	10022	CE1	TYR	526	101.416	33.531	55.146	1.00	25.02	B C
ATOM	10023	CD2	TYR	526	101.902	32.817	52.509	1.00	24.93	B C
ATOM	10024	CE2	TYR	526	102.189	31.922	53.527	1.00	26.65	B C
ATOM	10025	CZ	TYR	526	101.945	32.280	54.840	1.00	28.49	B C
ATOM	10026	OH	TYR	526	102.235	31.370	55.830	1.00	31.26	B O
ATOM	10027	C	TYR	526	102.540	36.770	52.609	1.00	16.76	B C
ATOM	10028	O	TYR	526	103.600	36.536	53.187	1.00	15.11	B O
ATOM	10029	N	GLN	527	101.676	37.680	53.024	1.00	17.09	B N
ATOM	10030	CA	GLN	527	101.901	38.417	54.250	1.00	17.75	B C
ATOM	10031	CB	GLN	527	102.417	39.833	53.978	1.00	16.32	B C
ATOM	10032	CG	GLN	527	101.462	40.740	53.234	1.00	15.60	B C
ATOM	10033	CD	GLN	527	101.935	42.188	53.213	1.00	16.43	B C
ATOM	10034	OE1	GLN	527	103.016	42.502	52.707	1.00	13.50	B O
ATOM	10035	NE2	GLN	527	101.121	43.079	53.771	1.00	15.38	B N
ATOM	10036	C	GLN	527	100.556	38.477	54.930	1.00	19.32	B C
ATOM	10037	O	GLN	527	99.519	38.439	54.269	1.00	19.02	B O
ATOM	10038	N	MET	528	100.575	38.532	56.253	1.00	20.93	B N
ATOM	10039	CA	MET	528	99.346	38.608	57.018	1.00	21.02	B C
ATOM	10040	CB	MET	528	99.076	37.295	57.748	1.00	21.14	B C
ATOM	10041	CG	MET	528	98.575	36.178	56.859	1.00	23.54	B C
ATOM	10042	SD	MET	528	98.325	34.650	57.776	1.00	23.43	B S
ATOM	10043	CE	MET	528	96.628	34.772	58.155	1.00	26.01	B C
ATOM	10044	C	MET	528	99.458	39.720	58.033	1.00	20.94	B C

(Continued)

FIG. 4-206

ATOM	10045	O	MET	528	100.471	39.845	58.720	1.00	21.07	B	O
ATOM	10046	N	ILE	529	98.432	40.554	58.100	1.00	19.01	B	N
ATOM	10047	CA	ILE	529	98.428	41.614	59.082	1.00	18.89	B	C
ATOM	10048	CB	ILE	529	97.718	42.860	58.540	1.00	16.80	B	C
ATOM	10049	CG2	ILE	529	97.656	43.937	59.615	1.00	13.98	B	C
ATOM	10050	CG1	ILE	529	98.469	43.368	57.296	1.00	15.06	B	C
ATOM	10051	CD1	ILE	529	99.934	43.701	57.537	1.00	11.03	B	C
ATOM	10052	C	ILE	529	97.656	40.969	60.225	1.00	20.15	B	C
ATOM	10053	O	ILE	529	96.457	40.720	60.124	1.00	20.94	B	O
ATOM	10054	N	LEU	530	98.359	40.653	61.302	1.00	21.19	B	N
ATOM	10055	CA	LEU	530	97.717	39.985	62.420	1.00	21.61	B	C
ATOM	10056	CB	LEU	530	98.649	38.907	62.976	1.00	19.85	B	C
ATOM	10057	CG	LEU	530	99.086	37.875	61.931	1.00	19.34	B	C
ATOM	10058	CD1	LEU	530	100.238	37.027	62.461	1.00	20.33	B	C
ATOM	10059	CD2	LEU	530	97.897	37.010	61.562	1.00	19.04	B	C
ATOM	10060	C	LEU	530	97.294	40.930	63.521	1.00	22.34	B	C
ATOM	10061	O	LEU	530	98.006	41.878	63.854	1.00	23.45	B	O
ATOM	10062	N	PRO	531	96.104	40.697	64.088	1.00	23.19	B	N
ATOM	10063	CD	PRO	531	95.105	39.684	63.711	1.00	22.71	B	C
ATOM	10064	CA	PRO	531	95.600	41.545	65.169	1.00	24.33	B	C
ATOM	10065	CB	PRO	531	94.188	41.002	65.404	1.00	22.74	B	C
ATOM	10066	CG	PRO	531	94.276	39.588	64.967	1.00	23.03	B	C
ATOM	10067	C	PRO	531	96.490	41.438	66.407	1.00	25.18	B	C
ATOM	10068	O	PRO	531	97.244	40.478	66.562	1.00	24.64	B	O
ATOM	10069	N	PRO	532	96.424	42.433	67.300	1.00	26.64	B	N
ATOM	10070	CD	PRO	532	95.502	43.581	67.326	1.00	25.36	B	C
ATOM	10071	CA	PRO	532	97.246	42.397	68.513	1.00	27.91	B	C
ATOM	10072	CB	PRO	532	96.868	43.698	69.216	1.00	27.08	B	C
ATOM	10073	CG	PRO	532	95.443	43.897	68.793	1.00	26.25	B	C
ATOM	10074	C	PRO	532	96.945	41.160	69.369	1.00	29.25	B	C
ATOM	10075	O	PRO	532	95.865	40.579	69.279	1.00	29.62	B	O
ATOM	10076	N	HIS	533	97.909	40.756	70.187	1.00	30.65	B	N
ATOM	10077	CA	HIS	533	97.738	39.602	71.061	1.00	31.99	B	C
ATOM	10078	CB	HIS	533	96.749	39.945	72.172	1.00	32.50	B	C
ATOM	10079	CG	HIS	533	96.981	41.293	72.783	1.00	35.12	B	C
ATOM	10080	CD2	HIS	533	96.168	42.370	72.903	1.00	36.18	B	C
ATOM	10081	ND1	HIS	533	98.181	41.653	73.358	1.00	35.49	B	N
ATOM	10082	CE1	HIS	533	98.096	42.892	73.807	1.00	36.37	B	C
ATOM	10083	NE2	HIS	533	96.885	43.350	73.544	1.00	37.01	B	N
ATOM	10084	C	HIS	533	97.249	38.382	70.286	1.00	33.21	B	C
ATOM	10085	O	HIS	533	96.447	37.590	70.791	1.00	32.78	B	O
ATOM	10086	N	PHE	534	97.739	38.243	69.058	1.00	33.50	B	N
ATOM	10087	CA	PHE	534	97.374	37.125	68.200	1.00	34.63	B	C
ATOM	10088	CB	PHE	534	98.283	37.085	66.970	1.00	32.35	B	C
ATOM	10089	CG	PHE	534	97.997	35.942	66.041	1.00	32.06	B	C
ATOM	10090	CD1	PHE	534	96.790	35.871	65.354	1.00	32.10	B	C
ATOM	10091	CD2	PHE	534	98.936	34.938	65.848	1.00	32.66	B	C
ATOM	10092	CE1	PHE	534	96.522	34.819	64.486	1.00	31.59	B	C
ATOM	10093	CE2	PHE	534	98.679	33.879	64.982	1.00	32.91	B	C

(Continued)

FIG. 4-207

ATOM	10094	CZ	PHE	534	97.469	33.820	64.298	1.00	32.93	B C
ATOM	10095	C	PHE	534	97.503	35.806	68.941	1.00	36.77	B C
ATOM	10096	O	PHE	534	98.532	35.534	69.565	1.00	37.84	B O
ATOM	10097	N	ASP	535	96.463	34.982	68.868	1.00	39.07	B N
ATOM	10098	CA	ASP	535	96.480	33.680	69.523	1.00	40.37	B C
ATOM	10099	CB	ASP	535	95.458	33.639	70.655	1.00	42.55	B C
ATOM	10100	CG	ASP	535	95.544	32.363	71.465	1.00	45.66	B C
ATOM	10101	OD1	ASP	535	94.783	32.227	72.445	1.00	49.45	B O
ATOM	10102	OD2	ASP	535	96.372	31.494	71.125	1.00	46.59	B O
ATOM	10103	C	ASP	535	96.159	32.601	68.503	1.00	39.36	B C
ATOM	10104	O	ASP	535	95.047	32.540	67.996	1.00	39.17	B O
ATOM	10105	N	LYS	536	97.135	31.746	68.216	1.00	40.23	B N
ATOM	10106	CA	LYS	536	96.964	30.680	67.233	1.00	41.20	B C
ATOM	10107	CB	LYS	536	98.302	30.001	66.947	1.00	42.62	B C
ATOM	10108	CG	LYS	536	98.266	29.089	65.731	1.00	46.75	B C
ATOM	10109	CD	LYS	536	99.657	28.577	65.355	1.00	49.06	B C
ATOM	10110	CE	LYS	536	99.624	27.800	64.040	1.00	48.68	B C
ATOM	10111	NZ	LYS	536	98.648	26.676	64.079	1.00	48.77	B N
ATOM	10112	C	LYS	536	95.937	29.620	67.607	1.00	40.95	B C
ATOM	10113	O	LYS	536	95.577	28.785	66.778	1.00	41.99	B O
ATOM	10114	N	SER	537	95.464	29.649	68.848	1.00	40.73	B N
ATOM	10115	CA	SER	537	94.469	28.681	69.296	1.00	40.33	B C
ATOM	10116	CB	SER	537	94.598	28.438	70.805	1.00	40.23	B C
ATOM	10117	OG	SER	537	94.434	29.636	71.541	1.00	40.12	B O
ATOM	10118	C	SER	537	93.064	29.179	68.968	1.00	40.20	B C
ATOM	10119	O	SER	537	92.103	28.412	68.977	1.00	40.87	B O
ATOM	10120	N	LYS	538	92.951	30.469	68.674	1.00	39.23	B N
ATOM	10121	CA	LYS	538	91.666	31.067	68.337	1.00	37.32	B C
ATOM	10122	CB	LYS	538	91.629	32.517	68.817	1.00	39.07	B C
ATOM	10123	CG	LYS	538	92.298	32.747	70.170	1.00	41.74	B C
ATOM	10124	CD	LYS	538	91.534	32.100	71.316	1.00	44.86	B C
ATOM	10125	CE	LYS	538	90.186	32.773	71.540	1.00	46.82	B C
ATOM	10126	NZ	LYS	538	89.417	32.121	72.636	1.00	47.36	B N
ATOM	10127	C	LYS	538	91.507	31.028	66.819	1.00	35.00	B C
ATOM	10128	O	LYS	538	92.464	30.754	66.101	1.00	34.33	B O
ATOM	10129	N	LYS	539	90.299	31.288	66.335	1.00	33.57	B N
ATOM	10130	CA	LYS	539	90.038	31.302	64.895	1.00	32.92	B C
ATOM	10131	CB	LYS	539	89.049	30.197	64.510	1.00	32.99	B C
ATOM	10132	CG	LYS	539	89.736	28.887	64.143	1.00	36.07	B C
ATOM	10133	CD	LYS	539	88.757	27.739	63.893	1.00	39.32	B C
ATOM	10134	CE	LYS	539	87.720	28.059	62.816	1.00	39.62	B C
ATOM	10135	NZ	LYS	539	86.644	28.969	63.310	1.00	39.49	B N
ATOM	10136	C	LYS	539	89.504	32.666	64.471	1.00	31.07	B C
ATOM	10137	O	LYS	539	88.424	33.087	64.902	1.00	30.44	B O
ATOM	10138	N	TYR	540	90.274	33.356	63.633	1.00	27.48	B N
ATOM	10139	CA	TYR	540	89.893	34.682	63.165	1.00	24.82	B C
ATOM	10140	CB	TYR	540	91.096	35.624	63.178	1.00	23.82	B C
ATOM	10141	CG	TYR	540	91.849	35.702	64.482	1.00	23.61	B C
ATOM	10142	CD1	TYR	540	92.614	34.627	64.936	1.00	21.98	B C

(Continued)

FIG. 4-208

ATOM	10143	CE1	TYR	540	93.321	34.708	66.130	1.00	21.65	B	C
ATOM	10144	CD2	TYR	540	91.810	36.863	65.257	1.00	22.89	B	C
ATOM	10145	CE2	TYR	540	92.507	36.955	66.449	1.00	22.77	B	C
ATOM	10146	CZ	TYR	540	93.261	35.875	66.881	1.00	22.87	B	C
ATOM	10147	OH	TYR	540	93.950	35.965	68.062	1.00	23.97	B	O
ATOM	10148	C	TYR	540	89.335	34.694	61.749	1.00	23.62	B	C
ATOM	10149	O	TYR	540	89.670	33.842	60.925	1.00	23.93	B	O
ATOM	10150	N	PRO	541	88.457	35.660	61.452	1.00	21.89	B	N
ATOM	10151	CD	PRO	541	87.820	36.667	62.320	1.00	21.22	B	C
ATOM	10152	CA	PRO	541	87.917	35.719	60.095	1.00	20.52	B	C
ATOM	10153	CB	PRO	541	86.770	36.717	60.228	1.00	20.30	B	C
ATOM	10154	CG	PRO	541	87.243	37.629	61.317	1.00	20.36	B	C
ATOM	10155	C	PRO	541	89.077	36.266	59.276	1.00	19.86	B	C
ATOM	10156	O	PRO	541	90.026	36.799	59.841	1.00	19.90	B	O
ATOM	10157	N	LEU	542	89.028	36.147	57.961	1.00	19.38	B	N
ATOM	10158	CA	LEU	542	90.133	36.655	57.169	1.00	18.21	B	C
ATOM	10159	CB	LEU	542	91.027	35.483	56.741	1.00	18.98	B	C
ATOM	10160	CG	LEU	542	92.215	35.768	55.816	1.00	19.24	B	C
ATOM	10161	CD1	LEU	542	93.296	34.721	56.025	1.00	17.89	B	C
ATOM	10162	CD2	LEU	542	91.741	35.775	54.374	1.00	19.31	B	C
ATOM	10163	C	LEU	542	89.677	37.458	55.954	1.00	17.31	B	C
ATOM	10164	O	LEU	542	88.720	37.087	55.282	1.00	18.08	B	O
ATOM	10165	N	LEU	543	90.368	38.564	55.694	1.00	14.81	B	N
ATOM	10166	CA	LEU	543	90.075	39.430	54.559	1.00	13.79	B	C
ATOM	10167	CB	LEU	543	89.816	40.872	55.015	1.00	12.33	B	C
ATOM	10168	CG	LEU	543	89.568	41.892	53.886	1.00	13.71	B	C
ATOM	10169	CD1	LEU	543	88.317	41.497	53.113	1.00	9.91	B	C
ATOM	10170	CD2	LEU	543	89.409	43.294	54.454	1.00	11.87	B	C
ATOM	10171	C	LEU	543	91.273	39.415	53.620	1.00	14.35	B	C
ATOM	10172	O	LEU	543	92.349	39.893	53.966	1.00	14.04	B	O
ATOM	10173	N	LEU	544	91.091	38.866	52.428	1.00	15.02	B	N
ATOM	10174	CA	LEU	544	92.191	38.807	51.480	1.00	16.19	B	C
ATOM	10175	CB	LEU	544	92.006	37.609	50.539	1.00	16.34	B	C
ATOM	10176	CG	LEU	544	93.163	37.231	49.608	1.00	14.93	B	C
ATOM	10177	CD1	LEU	544	94.345	36.752	50.429	1.00	15.36	B	C
ATOM	10178	CD2	LEU	544	92.713	36.128	48.654	1.00	15.79	B	C
ATOM	10179	C	LEU	544	92.276	40.109	50.679	1.00	16.49	B	C
ATOM	10180	O	LEU	544	91.437	40.374	49.819	1.00	17.02	B	O
ATOM	10181	N	ASP	545	93.280	40.925	50.997	1.00	15.13	B	N
ATOM	10182	CA	ASP	545	93.515	42.186	50.306	1.00	14.91	B	C
ATOM	10183	CB	ASP	545	94.479	43.069	51.117	1.00	15.71	B	C
ATOM	10184	CG	ASP	545	94.703	44.434	50.483	1.00	15.88	B	C
ATOM	10185	OD1	ASP	545	94.285	44.641	49.324	1.00	14.36	B	O
ATOM	10186	OD2	ASP	545	95.304	45.304	51.144	1.00	15.41	B	O
ATOM	10187	C	ASP	545	94.175	41.757	49.004	1.00	14.61	B	C
ATOM	10188	O	ASP	545	95.235	41.135	49.014	1.00	13.17	B	O
ATOM	10189	N	VAL	546	93.567	42.098	47.881	1.00	15.03	B	N
ATOM	10190	CA	VAL	546	94.116	41.667	46.614	1.00	17.39	B	C
ATOM	10191	CB	VAL	546	93.199	40.579	46.014	1.00	19.44	B	C

(Continued)

FIG. 4-209

ATOM	10192	CG1	VAL	546	93.717	40.124	44.647	1.00	17.87	B	C
ATOM	10193	CG2	VAL	546	93.109	39.410	46.983	1.00	20.93	B	C
ATOM	10194	C	VAL	546	94.343	42.722	45.542	1.00	17.09	B	C
ATOM	10195	O	VAL	546	93.601	43.694	45.447	1.00	18.12	B	O
ATOM	10196	N	TYR	547	95.391	42.519	44.745	1.00	15.70	B	N
ATOM	10197	CA	TYR	547	95.670	43.378	43.595	1.00	14.90	B	C
ATOM	10198	CB	TYR	547	96.838	44.335	43.821	1.00	12.56	B	C
ATOM	10199	CG	TYR	547	97.008	45.241	42.622	1.00	12.84	B	C
ATOM	10200	CD1	TYR	547	98.064	45.063	41.727	1.00	12.01	B	C
ATOM	10201	CE1	TYR	547	98.165	45.839	40.578	1.00	9.97	B	C
ATOM	10202	CD2	TYR	547	96.057	46.226	42.331	1.00	11.82	B	C
ATOM	10203	CE2	TYR	547	96.149	47.002	41.183	1.00	8.62	B	C
ATOM	10204	CZ	TYR	547	97.204	46.804	40.314	1.00	10.60	B	C
ATOM	10205	OH	TYR	547	97.304	47.573	39.179	1.00	12.10	B	O
ATOM	10206	C	TYR	547	96.011	42.392	42.485	1.00	13.60	B	C
ATOM	10207	O	TYR	547	95.244	42.205	41.548	1.00	13.39	B	O
ATOM	10208	N	ALA	548	97.170	41.763	42.608	1.00	13.66	B	N
ATOM	10209	CA	ALA	548	97.594	40.730	41.672	1.00	14.14	B	C
ATOM	10210	CB	ALA	548	96.658	39.518	41.807	1.00	11.57	B	C
ATOM	10211	C	ALA	548	97.732	41.105	40.207	1.00	13.67	B	C
ATOM	10212	O	ALA	548	97.681	40.234	39.340	1.00	14.21	B	O
ATOM	10213	N	GLY	549	97.905	42.386	39.913	1.00	13.87	B	N
ATOM	10214	CA	GLY	549	98.078	42.765	38.524	1.00	12.26	B	C
ATOM	10215	C	GLY	549	99.405	42.209	38.046	1.00	12.16	B	C
ATOM	10216	O	GLY	549	100.179	41.717	38.855	1.00	12.33	B	O
ATOM	10217	N	PRO	550	99.700	42.256	36.739	1.00	13.98	B	N
ATOM	10218	CD	PRO	550	98.853	42.760	35.644	1.00	12.99	B	C
ATOM	10219	CA	PRO	550	100.969	41.736	36.217	1.00	13.32	B	C
ATOM	10220	CB	PRO	550	100.863	42.007	34.721	1.00	14.56	B	C
ATOM	10221	CG	PRO	550	99.391	42.015	34.473	1.00	14.10	B	C
ATOM	10222	C	PRO	550	102.166	42.459	36.832	1.00	13.86	B	C
ATOM	10223	O	PRO	550	102.248	43.683	36.785	1.00	13.45	B	O
ATOM	10224	N	CYS	551	103.088	41.694	37.405	1.00	14.79	B	N
ATOM	10225	CA	CYS	551	104.283	42.244	38.027	1.00	15.51	B	C
ATOM	10226	CB	CYS	551	105.035	43.139	37.036	1.00	17.05	B	C
ATOM	10227	SG	CYS	551	106.732	43.567	37.543	1.00	17.09	B	S
ATOM	10228	C	CYS	551	103.967	43.018	39.312	1.00	16.05	B	C
ATOM	10229	O	CYS	551	104.693	43.938	39.702	1.00	15.36	B	O
ATOM	10230	N	SER	552	102.883	42.631	39.976	1.00	15.15	B	N
ATOM	10231	CA	SER	552	102.494	43.268	41.229	1.00	14.65	B	C
ATOM	10232	CB	SER	552	100.990	43.149	41.425	1.00	14.47	B	C
ATOM	10233	OG	SER	552	100.604	41.789	41.427	1.00	14.39	B	O
ATOM	10234	C	SER	552	103.201	42.608	42.418	1.00	15.21	B	C
ATOM	10235	O	SER	552	103.882	41.585	42.273	1.00	15.34	B	O
ATOM	10236	N	GLN	553	103.048	43.201	43.594	1.00	14.73	B	N
ATOM	10237	CA	GLN	553	103.654	42.647	44.794	1.00	14.31	B	C
ATOM	10238	CB	GLN	553	105.138	43.017	44.892	1.00	13.21	B	C
ATOM	10239	CG	GLN	553	105.852	42.332	46.056	1.00	15.05	B	C
ATOM	10240	CD	GLN	553	107.359	42.585	46.090	1.00	15.66	B	C

(Continued)

FIG. 4-210

ATOM	10241	OE1	GLN	553	107.812	43.686	46.400	1.00	16.56	B	O
ATOM	10242	NE2	GLN	553	108.138	41.556	45.773	1.00	15.50	B	N
ATOM	10243	C	GLN	553	102.921	43.166	46.012	1.00	14.58	B	C
ATOM	10244	O	GLN	553	103.148	44.295	46.434	1.00	14.77	B	O
ATOM	10245	N	LYS	554	102.031	42.344	46.568	1.00	14.78	B	N
ATOM	10246	CA	LYS	554	101.284	42.734	47.754	1.00	16.57	B	C
ATOM	10247	CB	LYS	554	99.817	42.318	47.633	1.00	17.81	B	C
ATOM	10248	CG	LYS	554	99.031	43.142	46.630	1.00	18.63	B	C
ATOM	10249	CD	LYS	554	99.047	44.612	47.000	1.00	18.55	B	C
ATOM	10250	CE	LYS	554	98.228	44.902	48.261	1.00	18.33	B	C
ATOM	10251	NZ	LYS	554	96.769	44.771	48.035	1.00	13.33	B	N
ATOM	10252	C	LYS	554	101.890	42.148	49.024	1.00	16.05	B	C
ATOM	10253	O	LYS	554	101.424	42.429	50.124	1.00	17.37	B	O
ATOM	10254	N	ALA	555	102.939	41.350	48.866	1.00	15.91	B	N
ATOM	10255	CA	ALA	555	103.622	40.730	50.004	1.00	15.84	B	C
ATOM	10256	CB	ALA	555	103.656	39.210	49.833	1.00	15.51	B	C
ATOM	10257	C	ALA	555	105.041	41.246	50.142	1.00	14.91	B	C
ATOM	10258	O	ALA	555	105.954	40.691	49.539	1.00	15.57	B	O
ATOM	10259	N	ASP	556	105.233	42.304	50.924	1.00	16.20	B	N
ATOM	10260	CA	ASP	556	106.571	42.854	51.134	1.00	16.65	B	C
ATOM	10261	CB	ASP	556	106.801	44.085	50.243	1.00	17.94	B	C
ATOM	10262	CG	ASP	556	105.750	45.159	50.430	1.00	19.95	B	C
ATOM	10263	OD1	ASP	556	105.355	45.429	51.583	1.00	22.16	B	O
ATOM	10264	OD2	ASP	556	105.327	45.751	49.415	1.00	21.01	B	O
ATOM	10265	C	ASP	556	106.862	43.202	52.597	1.00	16.87	B	C
ATOM	10266	O	ASP	556	106.046	42.962	53.480	1.00	15.15	B	O
ATOM	10267	N	THR	557	108.039	43.762	52.847	1.00	17.93	B	N
ATOM	10268	CA	THR	557	108.443	44.132	54.200	1.00	18.07	B	C
ATOM	10269	CB	THR	557	109.923	43.826	54.396	1.00	18.59	B	C
ATOM	10270	OG1	THR	557	110.687	44.589	53.454	1.00	20.98	B	O
ATOM	10271	CG2	THR	557	110.188	42.358	54.157	1.00	19.55	B	C
ATOM	10272	C	THR	557	108.203	45.616	54.531	1.00	17.89	B	C
ATOM	10273	O	THR	557	108.776	46.151	55.479	1.00	16.94	B	O
ATOM	10274	N	VAL	558	107.348	46.272	53.754	1.00	16.56	B	N
ATOM	10275	CA	VAL	558	107.049	47.682	53.964	1.00	14.93	B	C
ATOM	10276	CB	VAL	558	106.483	48.302	52.676	1.00	14.99	B	C
ATOM	10277	CG1	VAL	558	106.033	49.733	52.940	1.00	13.18	B	C
ATOM	10278	CG2	VAL	558	107.544	48.247	51.568	1.00	13.02	B	C
ATOM	10279	C	VAL	558	106.058	47.921	55.109	1.00	15.99	B	C
ATOM	10280	O	VAL	558	105.060	47.211	55.238	1.00	13.36	B	O
ATOM	10281	N	PHE	559	106.348	48.923	55.941	1.00	15.43	B	N
ATOM	10282	CA	PHE	559	105.484	49.269	57.069	1.00	14.56	B	C
ATOM	10283	CB	PHE	559	106.303	49.933	58.173	1.00	12.72	B	C
ATOM	10284	CG	PHE	559	105.469	50.504	59.282	1.00	11.04	B	C
ATOM	10285	CD1	PHE	559	105.064	49.712	60.347	1.00	10.65	B	C
ATOM	10286	CD2	PHE	559	105.056	51.833	59.244	1.00	12.10	B	C
ATOM	10287	CE1	PHE	559	104.260	50.232	61.356	1.00	8.83	B	C
ATOM	10288	CE2	PHE	559	104.251	52.360	60.252	1.00	10.43	B	C
ATOM	10289	CZ	PHE	559	103.855	51.554	61.307	1.00	8.93	B	C

(Continued)

FIG. 4-211

ATOM	10290	C	PHE	559	104.395	50.230	56.592	1.00	14.21	B	C
ATOM	10291	O	PHE	559	104.696	51.255	56.000	1.00	14.64	B	O
ATOM	10292	N	ARG	560	103.137	49.907	56.865	1.00	13.77	B	N
ATOM	10293	CA	ARG	560	102.029	50.744	56.421	1.00	14.06	B	C
ATOM	10294	CB	ARG	560	101.354	50.117	55.185	1.00	12.20	B	C
ATOM	10295	CG	ARG	560	102.248	49.988	53.954	1.00	11.36	B	C
ATOM	10296	CD	ARG	560	101.491	49.421	52.755	1.00	10.73	B	C
ATOM	10297	NE	ARG	560	102.322	48.486	51.999	1.00	13.38	B	N
ATOM	10298	CZ	ARG	560	103.126	48.828	51.002	1.00	14.76	B	C
ATOM	10299	NH1	ARG	560	103.203	50.090	50.614	1.00	19.68	B	N
ATOM	10300	NH2	ARG	560	103.887	47.915	50.421	1.00	16.46	B	N
ATOM	10301	C	ARG	560	100.962	50.980	57.486	1.00	14.74	B	C
ATOM	10302	O	ARG	560	100.661	50.100	58.291	1.00	16.54	B	O
ATOM	10303	N	LEU	561	100.403	52.183	57.483	1.00	13.62	B	N
ATOM	10304	CA	LEU	561	99.325	52.551	58.392	1.00	13.55	B	C
ATOM	10305	CB	LEU	561	99.626	53.875	59.100	1.00	11.68	B	C
ATOM	10306	CG	LEU	561	100.694	53.872	60.189	1.00	12.53	B	C
ATOM	10307	CD1	LEU	561	100.901	55.299	60.698	1.00	8.41	B	C
ATOM	10308	CD2	LEU	561	100.275	52.934	61.319	1.00	10.22	B	C
ATOM	10309	C	LEU	561	98.114	52.725	57.475	1.00	12.59	B	C
ATOM	10310	O	LEU	561	97.987	53.734	56.785	1.00	10.30	B	O
ATOM	10311	N	ASN	562	97.222	51.748	57.465	1.00	12.69	B	N
ATOM	10312	CA	ASN	562	96.071	51.841	56.577	1.00	15.06	B	C
ATOM	10313	CB	ASN	562	96.462	51.267	55.220	1.00	14.07	B	C
ATOM	10314	CG	ASN	562	96.924	49.823	55.318	1.00	14.26	B	C
ATOM	10315	OD1	ASN	562	97.566	49.309	54.407	1.00	15.38	B	O
ATOM	10316	ND2	ASN	562	96.582	49.157	56.423	1.00	11.43	B	N
ATOM	10317	C	ASN	562	94.818	51.139	57.086	1.00	14.89	B	C
ATOM	10318	O	ASN	562	94.712	50.793	58.260	1.00	16.50	B	O
ATOM	10319	N	TRP	563	93.872	50.936	56.178	1.00	15.26	B	N
ATOM	10320	CA	TRP	563	92.616	50.281	56.502	1.00	15.35	B	C
ATOM	10321	CB	TRP	563	91.770	50.132	55.244	1.00	13.87	B	C
ATOM	10322	CG	TRP	563	90.365	49.719	55.511	1.00	15.58	B	C
ATOM	10323	CD2	TRP	563	89.623	48.721	54.804	1.00	12.95	B	C
ATOM	10324	CE2	TRP	563	88.330	48.684	55.369	1.00	13.17	B	C
ATOM	10325	CE3	TRP	563	89.927	47.856	53.745	1.00	10.64	B	C
ATOM	10326	CD1	TRP	563	89.512	50.237	56.456	1.00	13.99	B	C
ATOM	10327	NE1	TRP	563	88.289	49.617	56.373	1.00	14.03	B	N
ATOM	10328	CZ2	TRP	563	87.346	47.816	54.911	1.00	13.35	B	C
ATOM	10329	CZ3	TRP	563	88.951	46.995	53.290	1.00	9.50	B	C
ATOM	10330	CH2	TRP	563	87.673	46.980	53.872	1.00	12.48	B	C
ATOM	10331	C	TRP	563	92.880	48.919	57.119	1.00	16.18	B	C
ATOM	10332	O	TRP	563	92.279	48.562	58.132	1.00	15.81	B	O
ATOM	10333	N	ALA	564	93.790	48.161	56.515	1.00	17.44	B	N
ATOM	10334	CA	ALA	564	94.124	46.841	57.042	1.00	17.65	B	C
ATOM	10335	CB	ALA	564	95.216	46.186	56.197	1.00	16.15	B	C
ATOM	10336	C	ALA	564	94.585	46.973	58.489	1.00	18.07	B	C
ATOM	10337	O	ALA	564	94.256	46.127	59.320	1.00	18.92	B	O
ATOM	10338	N	THR	565	95.332	48.037	58.793	1.00	17.73	B	N

(Continued)

FIG. 4-212

ATOM	10339	CA	THR	565	95.817	48.259	60.159	1.00	17.29	B	C
ATOM	10340	CB	THR	565	96.626	49.551	60.294	1.00	17.13	B	C
ATOM	10341	OG1	THR	565	97.677	49.570	59.330	1.00	20.36	B	O
ATOM	10342	CG2	THR	565	97.238	49.636	61.676	1.00	18.23	B	C
ATOM	10343	C	THR	565	94.665	48.355	61.157	1.00	15.84	B	C
ATOM	10344	O	THR	565	94.738	47.804	62.249	1.00	14.07	B	O
ATOM	10345	N	TYR	566	93.605	49.061	60.781	1.00	15.76	B	N
ATOM	10346	CA	TYR	566	92.455	49.204	61.664	1.00	17.74	B	C
ATOM	10347	CB	TYR	566	91.543	50.335	61.177	1.00	15.61	B	C
ATOM	10348	CG	TYR	566	90.067	50.039	61.311	1.00	17.40	B	C
ATOM	10349	CD1	TYR	566	89.303	49.688	60.195	1.00	17.77	B	C
ATOM	10350	CE1	TYR	566	87.947	49.390	60.310	1.00	15.12	B	C
ATOM	10351	CD2	TYR	566	89.432	50.086	62.556	1.00	18.30	B	C
ATOM	10352	CE2	TYR	566	88.073	49.789	62.682	1.00	17.35	B	C
ATOM	10353	CZ	TYR	566	87.340	49.441	61.550	1.00	17.10	B	C
ATOM	10354	OH	TYR	566	86.005	49.137	61.662	1.00	17.63	B	O
ATOM	10355	C	TYR	566	91.667	47.899	61.777	1.00	19.12	B	C
ATOM	10356	O	TYR	566	91.249	47.517	62.871	1.00	20.12	B	O
ATOM	10357	N	LEU	567	91.481	47.211	60.654	1.00	19.08	B	N
ATOM	10358	CA	LEU	567	90.735	45.959	60.648	1.00	19.66	B	C
ATOM	10359	CB	LEU	567	90.606	45.419	59.223	1.00	18.00	B	C
ATOM	10360	CG	LEU	567	89.728	46.252	58.284	1.00	18.48	B	C
ATOM	10361	CD1	LEU	567	89.735	45.628	56.889	1.00	19.22	B	C
ATOM	10362	CD2	LEU	567	88.310	46.325	58.835	1.00	15.78	B	C
ATOM	10363	C	LEU	567	91.355	44.898	61.544	1.00	20.80	B	C
ATOM	10364	O	LEU	567	90.645	44.102	62.157	1.00	23.88	B	O
ATOM	10365	N	ALA	568	92.677	44.883	61.628	1.00	19.62	B	N
ATOM	10366	CA	ALA	568	93.347	43.898	62.466	1.00	20.08	B	C
ATOM	10367	CB	ALA	568	94.746	43.601	61.907	1.00	18.06	B	C
ATOM	10368	C	ALA	568	93.451	44.362	63.924	1.00	20.52	B	C
ATOM	10369	O	ALA	568	93.319	43.569	64.849	1.00	20.37	B	O
ATOM	10370	N	SER	569	93.674	45.653	64.128	1.00	20.79	B	N
ATOM	10371	CA	SER	569	93.827	46.182	65.474	1.00	21.75	B	C
ATOM	10372	CB	SER	569	94.520	47.545	65.401	1.00	21.85	B	C
ATOM	10373	OG	SER	569	94.546	48.188	66.657	1.00	22.64	B	O
ATOM	10374	C	SER	569	92.525	46.297	66.267	1.00	22.83	B	C
ATOM	10375	O	SER	569	92.505	46.029	67.470	1.00	22.38	B	O
ATOM	10376	N	THR	570	91.444	46.679	65.589	1.00	22.26	B	N
ATOM	10377	CA	THR	570	90.153	46.862	66.232	1.00	21.45	B	C
ATOM	10378	CB	THR	570	89.512	48.191	65.797	1.00	19.91	B	C
ATOM	10379	OG1	THR	570	90.349	49.285	66.188	1.00	21.12	B	O
ATOM	10380	CG2	THR	570	88.143	48.351	66.430	1.00	17.96	B	C
ATOM	10381	C	THR	570	89.132	45.751	65.974	1.00	24.43	B	C
ATOM	10382	O	THR	570	88.453	45.301	66.894	1.00	27.79	B	O
ATOM	10383	N	GLU	571	89.001	45.317	64.727	1.00	23.34	B	N
ATOM	10384	CA	GLU	571	88.030	44.280	64.415	1.00	21.95	B	C
ATOM	10385	CB	GLU	571	87.499	44.481	62.998	1.00	22.83	B	C
ATOM	10386	CG	GLU	571	87.004	45.888	62.709	1.00	24.63	B	C
ATOM	10387	CD	GLU	571	85.957	46.357	63.696	1.00	25.17	B	C

(Continued)

FIG. 4-213

ATOM	10388	OE1	GLU	571	85.236	45.509	64.258	1.00	28.12	B	O
ATOM	10389	OE2	GLU	571	85.834	47.580	63.897	1.00	26.28	B	O
ATOM	10390	C	GLU	571	88.606	42.874	64.554	1.00	21.35	B	C
ATOM	10391	O	GLU	571	87.903	41.887	64.362	1.00	19.91	B	O
ATOM	10392	N	ASN	572	89.887	42.784	64.894	1.00	22.55	B	N
ATOM	10393	CA	ASN	572	90.539	41.491	65.043	1.00	21.58	B	C
ATOM	10394	CB	ASN	572	89.998	40.744	66.255	1.00	23.76	B	C
ATOM	10395	CG	ASN	572	90.523	41.303	67.552	1.00	27.80	B	C
ATOM	10396	OD1	ASN	572	90.053	42.335	68.035	1.00	30.34	B	O
ATOM	10397	ND2	ASN	572	91.522	40.634	68.121	1.00	30.31	B	N
ATOM	10398	C	ASN	572	90.347	40.639	63.806	1.00	21.12	B	C
ATOM	10399	O	ASN	572	90.112	39.436	63.903	1.00	20.16	B	O
ATOM	10400	N	ILE	573	90.445	41.280	62.645	1.00	19.59	B	N
ATOM	10401	CA	ILE	573	90.311	40.604	61.365	1.00	18.06	B	C
ATOM	10402	CB	ILE	573	89.509	41.456	60.382	1.00	18.14	B	C
ATOM	10403	CG2	ILE	573	89.371	40.735	59.057	1.00	18.53	B	C
ATOM	10404	CG1	ILE	573	88.143	41.778	60.970	1.00	19.49	B	C
ATOM	10405	CD1	ILE	573	87.336	42.735	60.131	1.00	20.04	B	C
ATOM	10406	C	ILE	573	91.706	40.425	60.777	1.00	18.47	B	C
ATOM	10407	O	ILE	573	92.480	41.376	60.739	1.00	19.08	B	O
ATOM	10408	N	ILE	574	92.038	39.216	60.337	1.00	17.57	B	N
ATOM	10409	CA	ILE	574	93.340	38.978	59.724	1.00	18.02	B	C
ATOM	10410	CB	ILE	574	93.724	37.494	59.740	1.00	19.09	B	C
ATOM	10411	CG2	ILE	574	94.950	37.280	58.870	1.00	20.13	B	C
ATOM	10412	CG1	ILE	574	94.004	37.031	61.172	1.00	21.02	B	C
ATOM	10413	CD1	ILE	574	94.330	35.553	61.282	1.00	20.47	B	C
ATOM	10414	C	ILE	574	93.298	39.423	58.265	1.00	17.84	B	C
ATOM	10415	O	ILE	574	92.444	38.981	57.500	1.00	19.48	B	O
ATOM	10416	N	VAL	575	94.217	40.296	57.876	1.00	17.13	B	N
ATOM	10417	CA	VAL	575	94.254	40.777	56.498	1.00	16.42	B	C
ATOM	10418	CB	VAL	575	94.354	42.308	56.430	1.00	16.55	B	C
ATOM	10419	CG1	VAL	575	94.271	42.753	54.985	1.00	16.06	B	C
ATOM	10420	CG2	VAL	575	93.242	42.948	57.261	1.00	15.54	B	C
ATOM	10421	C	VAL	575	95.452	40.187	55.786	1.00	16.02	B	C
ATOM	10422	O	VAL	575	96.592	40.488	56.124	1.00	16.68	B	O
ATOM	10423	N	ALA	576	95.186	39.344	54.797	1.00	16.21	B	N
ATOM	10424	CA	ALA	576	96.246	38.683	54.056	1.00	15.22	B	C
ATOM	10425	CB	ALA	576	96.062	37.176	54.127	1.00	12.38	B	C
ATOM	10426	C	ALA	576	96.330	39.117	52.601	1.00	15.92	B	C
ATOM	10427	O	ALA	576	95.397	39.710	52.046	1.00	16.20	B	O
ATOM	10428	N	SER	577	97.470	38.811	51.996	1.00	14.35	B	N
ATOM	10429	CA	SER	577	97.722	39.123	50.606	1.00	13.57	B	C
ATOM	10430	CB	SER	577	98.368	40.495	50.474	1.00	13.58	B	C
ATOM	10431	OG	SER	577	97.456	41.504	50.866	1.00	16.22	B	O
ATOM	10432	C	SER	577	98.642	38.045	50.069	1.00	13.24	B	C
ATOM	10433	O	SER	577	99.497	37.522	50.788	1.00	13.05	B	O
ATOM	10434	N	PHE	578	98.462	37.712	48.800	1.00	11.98	B	N
ATOM	10435	CA	PHE	578	99.262	36.676	48.183	1.00	11.24	B	C
ATOM	10436	CB	PHE	578	98.418	35.407	48.079	1.00	11.42	B	C

(Continued)

FIG. 4-214

ATOM	10437	CG	PHE	578	99.136	34.232	47.481	1.00	10.60	B C
ATOM	10438	CD1	PHE	578	100.196	33.628	48.152	1.00	10.29	B C
ATOM	10439	CD2	PHE	578	98.697	33.679	46.280	1.00	10.36	B C
ATOM	10440	CE1	PHE	578	100.805	32.483	47.640	1.00	11.15	B C
ATOM	10441	CE2	PHE	578	99.297	32.537	45.762	1.00	11.72	B C
ATOM	10442	CZ	PHE	578	100.354	31.936	46.446	1.00	10.87	B C
ATOM	10443	C	PHE	578	99.746	37.096	46.805	1.00	10.56	B C
ATOM	10444	O	PHE	578	99.002	37.704	46.039	1.00	10.76	B O
ATOM	10445	N	ASP	579	101.005	36.780	46.516	1.00	11.14	B N
ATOM	10446	CA	ASP	579	101.617	37.069	45.227	1.00	9.94	B C
ATOM	10447	CB	ASP	579	103.008	37.682	45.401	1.00	9.15	B C
ATOM	10448	CG	ASP	579	102.957	39.090	45.954	1.00	13.00	B C
ATOM	10449	OD1	ASP	579	102.053	39.842	45.532	1.00	14.87	B O
ATOM	10450	OD2	ASP	579	103.816	39.451	46.796	1.00	11.19	B O
ATOM	10451	C	ASP	579	101.734	35.741	44.488	1.00	11.60	B C
ATOM	10452	O	ASP	579	102.633	34.927	44.753	1.00	12.07	B O
ATOM	10453	N	GLY	580	100.809	35.510	43.570	1.00	10.77	B N
ATOM	10454	CA	GLY	580	100.838	34.274	42.815	1.00	11.96	B C
ATOM	10455	C	GLY	580	101.458	34.470	41.450	1.00	13.34	B C
ATOM	10456	O	GLY	580	102.269	35.376	41.227	1.00	12.96	B O
ATOM	10457	N	ARG	581	101.080	33.611	40.521	1.00	14.18	B N
ATOM	10458	CA	ARG	581	101.615	33.714	39.187	1.00	15.34	B C
ATOM	10459	CB	ARG	581	101.085	32.570	38.338	1.00	13.67	B C
ATOM	10460	CG	ARG	581	101.809	31.283	38.666	1.00	15.30	B C
ATOM	10461	CD	ARG	581	101.172	30.076	38.023	1.00	14.62	B C
ATOM	10462	NE	ARG	581	99.980	29.652	38.740	1.00	13.01	B N
ATOM	10463	CZ	ARG	581	99.186	28.672	38.330	1.00	13.69	B C
ATOM	10464	NH1	ARG	581	99.467	28.024	37.207	1.00	13.99	B N
ATOM	10465	NH2	ARG	581	98.112	28.348	39.036	1.00	12.41	B N
ATOM	10466	C	ARG	581	101.237	35.069	38.624	1.00	17.21	B C
ATOM	10467	O	ARG	581	100.175	35.615	38.934	1.00	17.96	B O
ATOM	10468	N	GLY	582	102.128	35.628	37.817	1.00	18.14	B N
ATOM	10469	CA	GLY	582	101.868	36.933	37.258	1.00	17.73	B C
ATOM	10470	C	GLY	582	102.454	37.998	38.159	1.00	16.81	B C
ATOM	10471	O	GLY	582	102.557	39.151	37.754	1.00	18.98	B O
ATOM	10472	N	SER	583	102.835	37.625	39.378	1.00	15.90	B N
ATOM	10473	CA	SER	583	103.423	38.588	40.309	1.00	16.60	B C
ATOM	10474	CB	SER	583	103.437	38.024	41.730	1.00	17.47	B C
ATOM	10475	OG	SER	583	104.229	36.856	41.811	1.00	21.54	B O
ATOM	10476	C	SER	583	104.841	38.901	39.841	1.00	15.56	B C
ATOM	10477	O	SER	583	105.389	38.176	39.013	1.00	17.79	B O
ATOM	10478	N	GLY	584	105.441	39.970	40.359	1.00	14.64	B N
ATOM	10479	CA	GLY	584	106.776	40.334	39.908	1.00	13.05	B C
ATOM	10480	C	GLY	584	107.969	40.158	40.831	1.00	12.28	B C
ATOM	10481	O	GLY	584	107.851	39.648	41.949	1.00	11.78	B O
ATOM	10482	N	TYR	585	109.129	40.583	40.325	1.00	12.34	B N
ATOM	10483	CA	TYR	585	110.412	40.536	41.034	1.00	12.19	B C
ATOM	10484	CB	TYR	585	110.335	41.383	42.304	1.00	11.93	B C
ATOM	10485	CG	TYR	585	109.704	42.719	42.047	1.00	12.41	B C

(Continued)

FIG. 4-215

ATOM	10486	CD1	TYR	585	110.370	43.694	41.297	1.00	12.30	B	C
ATOM	10487	CE1	TYR	585	109.756	44.891	40.979	1.00	12.43	B	C
ATOM	10488	CD2	TYR	585	108.408	42.983	42.478	1.00	10.95	B	C
ATOM	10489	CE2	TYR	585	107.783	44.179	42.167	1.00	12.28	B	C
ATOM	10490	CZ	TYR	585	108.459	45.126	41.418	1.00	13.31	B	C
ATOM	10491	OH	TYR	585	107.831	46.306	41.109	1.00	14.33	B	O
ATOM	10492	C	TYR	585	110.883	39.141	41.394	1.00	12.01	B	C
ATOM	10493	O	TYR	585	111.673	38.979	42.319	1.00	13.01	B	O
ATOM	10494	N	GLN	586	110.413	38.144	40.655	1.00	11.45	B	N
ATOM	10495	CA	GLN	586	110.787	36.763	40.906	1.00	11.62	B	C
ATOM	10496	CB	GLN	586	109.639	36.071	41.641	1.00	10.30	B	C
ATOM	10497	CG	GLN	586	109.178	36.854	42.867	1.00	14.38	B	C
ATOM	10498	CD	GLN	586	107.749	36.533	43.295	1.00	15.38	B	C
ATOM	10499	OE1	GLN	586	107.468	35.452	43.816	1.00	12.14	B	O
ATOM	10500	NE2	GLN	586	106.835	37.478	43.060	1.00	15.36	B	N
ATOM	10501	C	GLN	586	111.118	36.023	39.602	1.00	12.85	B	C
ATOM	10502	O	GLN	586	111.173	34.786	39.574	1.00	13.97	B	O
ATOM	10503	N	GLY	587	111.336	36.778	38.525	1.00	11.70	B	N
ATOM	10504	CA	GLY	587	111.641	36.168	37.242	1.00	11.61	B	C
ATOM	10505	C	GLY	587	110.405	35.960	36.373	1.00	14.10	B	C
ATOM	10506	O	GLY	587	109.302	35.786	36.884	1.00	13.91	B	O
ATOM	10507	N	ASP	588	110.595	35.949	35.054	1.00	16.19	B	N
ATOM	10508	CA	ASP	588	109.500	35.776	34.105	1.00	17.70	B	C
ATOM	10509	CB	ASP	588	110.002	35.993	32.680	1.00	18.98	B	C
ATOM	10510	CG	ASP	588	110.708	37.312	32.505	1.00	20.57	B	C
ATOM	10511	OD1	ASP	588	110.236	38.335	33.040	1.00	23.28	B	O
ATOM	10512	OD2	ASP	588	111.738	37.327	31.809	1.00	23.25	B	O
ATOM	10513	C	ASP	588	108.723	34.454	34.139	1.00	17.46	B	C
ATOM	10514	O	ASP	588	107.608	34.389	33.635	1.00	16.74	B	O
ATOM	10515	N	LYS	589	109.294	33.397	34.697	1.00	18.02	B	N
ATOM	10516	CA	LYS	589	108.559	32.143	34.734	1.00	20.00	B	C
ATOM	10517	CB	LYS	589	109.383	31.030	35.372	1.00	22.21	B	C
ATOM	10518	CG	LYS	589	108.633	29.710	35.443	1.00	27.16	B	C
ATOM	10519	CD	LYS	589	109.526	28.579	35.940	1.00	32.47	B	C
ATOM	10520	CE	LYS	589	108.753	27.273	36.111	1.00	33.79	B	C
ATOM	10521	NZ	LYS	589	109.605	26.232	36.771	1.00	35.98	B	N
ATOM	10522	C	LYS	589	107.290	32.362	35.536	1.00	20.94	B	C
ATOM	10523	O	LYS	589	106.244	31.781	35.242	1.00	23.79	B	O
ATOM	10524	N	ILE	590	107.384	33.212	36.552	1.00	18.06	B	N
ATOM	10525	CA	ILE	590	106.237	33.523	37.379	1.00	14.07	B	C
ATOM	10526	CB	ILE	590	106.681	33.901	38.814	1.00	11.33	B	C
ATOM	10527	CG2	ILE	590	105.585	34.654	39.538	1.00	9.61	B	C
ATOM	10528	CG1	ILE	590	107.057	32.635	39.585	1.00	10.89	B	C
ATOM	10529	CD1	ILE	590	107.750	32.888	40.897	1.00	7.05	B	C
ATOM	10530	C	ILE	590	105.461	34.682	36.753	1.00	15.70	B	C
ATOM	10531	O	ILE	590	104.254	34.583	36.511	1.00	16.31	B	O
ATOM	10532	N	MET	591	106.159	35.774	36.465	1.00	15.00	B	N
ATOM	10533	CA	MET	591	105.506	36.948	35.907	1.00	14.79	B	C
ATOM	10534	CB	MET	591	106.512	38.088	35.759	1.00	14.22	B	C

(Continued)

FIG. 4-216

ATOM	10535	CG	MET	591	105.854	39.452	35.581	1.00	18.55	B C
ATOM	10536	SD	MET	591	107.027	40.830	35.526	1.00	17.84	B S
ATOM	10537	CE	MET	591	107.813	40.502	33.933	1.00	16.39	B C
ATOM	10538	C	MET	591	104.788	36.699	34.582	1.00	14.86	B C
ATOM	10539	O	MET	591	103.643	37.113	34.418	1.00	14.45	B O
ATOM	10540	N	HIS	592	105.451	36.022	33.647	1.00	14.66	B N
ATOM	10541	CA	HIS	592	104.863	35.725	32.343	1.00	14.33	B C
ATOM	10542	CB	HIS	592	105.962	35.424	31.332	1.00	15.14	B C
ATOM	10543	CG	HIS	592	106.753	36.626	30.922	1.00	17.56	B C
ATOM	10544	CD2	HIS	592	106.626	37.933	31.252	1.00	17.20	B C
ATOM	10545	ND1	HIS	592	107.810	36.555	30.041	1.00	17.84	B N
ATOM	10546	CE1	HIS	592	108.300	37.765	29.845	1.00	16.59	B C
ATOM	10547	NE2	HIS	592	107.598	38.620	30.567	1.00	16.88	B N
ATOM	10548	C	HIS	592	103.859	34.569	32.355	1.00	15.17	B C
ATOM	10549	O	HIS	592	103.224	34.274	31.344	1.00	15.89	B O
ATOM	10550	N	ALA	593	103.708	33.917	33.500	1.00	15.86	B N
ATOM	10551	CA	ALA	593	102.775	32.810	33.615	1.00	14.02	B C
ATOM	10552	CB	ALA	593	102.690	32.353	35.060	1.00	13.60	B C
ATOM	10553	C	ALA	593	101.393	33.195	33.106	1.00	15.66	B C
ATOM	10554	O	ALA	593	100.647	32.335	32.631	1.00	17.83	B O
ATOM	10555	N	ILE	594	101.043	34.478	33.207	1.00	16.63	B N
ATOM	10556	CA	ILE	594	99.731	34.945	32.745	1.00	16.87	B C
ATOM	10557	CB	ILE	594	99.035	35.857	33.791	1.00	15.87	B C
ATOM	10558	CG2	ILE	594	98.506	35.017	34.932	1.00	16.36	B C
ATOM	10559	CG1	ILE	594	100.006	36.915	34.321	1.00	16.86	B C
ATOM	10560	CD1	ILE	594	100.533	37.882	33.274	1.00	16.67	B C
ATOM	10561	C	ILE	594	99.748	35.689	31.413	1.00	17.96	B C
ATOM	10562	O	ILE	594	98.884	36.525	31.160	1.00	19.03	B O
ATOM	10563	N	ASN	595	100.718	35.385	30.558	1.00	17.93	B N
ATOM	10564	CA	ASN	595	100.802	36.050	29.263	1.00	19.09	B C
ATOM	10565	CB	ASN	595	102.140	35.737	28.592	1.00	19.22	B C
ATOM	10566	CG	ASN	595	102.291	36.441	27.260	1.00	19.91	B C
ATOM	10567	OD1	ASN	595	102.320	37.668	27.198	1.00	19.01	B O
ATOM	10568	ND2	ASN	595	102.377	35.667	26.184	1.00	19.95	B N
ATOM	10569	C	ASN	595	99.659	35.641	28.330	1.00	19.09	B C
ATOM	10570	O	ASN	595	99.456	34.460	28.076	1.00	19.31	B O
ATOM	10571	N	ARG	596	98.933	36.630	27.814	1.00	19.66	B N
ATOM	10572	CA	ARG	596	97.799	36.406	26.911	1.00	20.07	B C
ATOM	10573	CB	ARG	596	98.212	35.588	25.677	1.00	17.78	B C
ATOM	10574	CG	ARG	596	99.233	36.247	24.756	1.00	17.26	B C
ATOM	10575	CD	ARG	596	99.655	35.296	23.636	1.00	17.14	B C
ATOM	10576	NE	ARG	596	98.553	34.982	22.728	1.00	17.97	B N
ATOM	10577	CZ	ARG	596	98.102	35.816	21.795	1.00	19.85	B C
ATOM	10578	NH1	ARG	596	98.671	37.005	21.640	1.00	21.47	B N
ATOM	10579	NH2	ARG	596	97.060	35.486	21.045	1.00	18.12	B N
ATOM	10580	C	ARG	596	96.692	35.655	27.632	1.00	21.03	B C
ATOM	10581	O	ARG	596	95.731	35.213	27.005	1.00	22.67	B O
ATOM	10582	N	ARG	597	96.811	35.529	28.948	1.00	20.90	B N
ATOM	10583	CA	ARG	597	95.831	34.770	29.714	1.00	20.85	B C

(Continued)

FIG. 4-217

ATOM	10584	CB	ARG	597	96.437	33.414	30.078	1.00	23.88	B	C
ATOM	10585	CG	ARG	597	95.850	32.257	29.300	1.00	31.40	B	C
ATOM	10586	CD	ARG	597	95.913	32.520	27.810	1.00	34.67	B	C
ATOM	10587	NE	ARG	597	95.006	31.660	27.059	1.00	35.49	B	N
ATOM	10588	CZ	ARG	597	94.776	31.792	25.759	1.00	35.98	B	C
ATOM	10589	NH1	ARG	597	95.386	32.748	25.075	1.00	35.20	B	N
ATOM	10590	NH2	ARG	597	93.933	30.974	25.145	1.00	39.12	B	N
ATOM	10591	C	ARG	597	95.292	35.429	30.976	1.00	18.83	B	C
ATOM	10592	O	ARG	597	94.981	34.739	31.945	1.00	17.54	B	O
ATOM	10593	N	LEU	598	95.175	36.751	30.964	1.00	16.66	B	N
ATOM	10594	CA	LEU	598	94.678	37.477	32.125	1.00	15.71	B	C
ATOM	10595	CB	LEU	598	94.482	38.959	31.769	1.00	12.95	B	C
ATOM	10596	CG	LEU	598	95.523	39.990	32.248	1.00	12.69	B	C
ATOM	10597	CD1	LEU	598	96.939	39.473	32.106	1.00	11.40	B	C
ATOM	10598	CD2	LEU	598	95.361	41.267	31.466	1.00	9.68	B	C
ATOM	10599	C	LEU	598	93.369	36.870	32.642	1.00	17.19	B	C
ATOM	10600	O	LEU	598	92.533	36.398	31.863	1.00	17.25	B	O
ATOM	10601	N	GLY	599	93.207	36.864	33.961	1.00	16.06	B	N
ATOM	10602	CA	GLY	599	91.997	36.328	34.547	1.00	16.44	B	C
ATOM	10603	C	GLY	599	91.987	34.824	34.735	1.00	17.37	B	C
ATOM	10604	O	GLY	599	90.921	34.221	34.843	1.00	17.28	B	O
ATOM	10605	N	THR	600	93.164	34.213	34.786	1.00	17.73	B	N
ATOM	10606	CA	THR	600	93.247	32.775	34.972	1.00	17.95	B	C
ATOM	10607	CB	THR	600	93.823	32.091	33.722	1.00	18.93	B	C
ATOM	10608	OG1	THR	600	95.185	32.495	33.530	1.00	17.74	B	O
ATOM	10609	CG2	THR	600	93.000	32.463	32.491	1.00	17.48	B	C
ATOM	10610	C	THR	600	94.087	32.384	36.183	1.00	19.93	B	C
ATOM	10611	O	THR	600	93.574	32.285	37.295	1.00	21.69	B	O
ATOM	10612	N	PHE	601	95.382	32.177	35.971	1.00	21.11	B	N
ATOM	10613	CA	PHE	601	96.279	31.768	37.048	1.00	21.56	B	C
ATOM	10614	CB	PHE	601	97.686	31.542	36.494	1.00	20.77	B	C
ATOM	10615	CG	PHE	601	97.757	30.452	35.475	1.00	21.75	B	C
ATOM	10616	CD1	PHE	601	98.676	30.513	34.439	1.00	23.50	B	C
ATOM	10617	CD2	PHE	601	96.896	29.366	35.539	1.00	21.83	B	C
ATOM	10618	CE1	PHE	601	98.731	29.502	33.474	1.00	24.75	B	C
ATOM	10619	CE2	PHE	601	96.949	28.356	34.581	1.00	22.61	B	C
ATOM	10620	CZ	PHE	601	97.868	28.427	33.547	1.00	20.03	B	C
ATOM	10621	C	PHE	601	96.346	32.710	38.244	1.00	21.61	B	C
ATOM	10622	O	PHE	601	96.437	32.247	39.386	1.00	23.03	B	O
ATOM	10623	N	GLU	602	96.312	34.018	37.997	1.00	20.14	B	N
ATOM	10624	CA	GLU	602	96.374	34.976	39.097	1.00	19.30	B	C
ATOM	10625	CB	GLU	602	96.505	36.422	38.581	1.00	16.90	B	C
ATOM	10626	CG	GLU	602	95.193	37.072	38.135	1.00	17.16	B	C
ATOM	10627	CD	GLU	602	94.857	36.847	36.661	1.00	17.31	B	C
ATOM	10628	OE1	GLU	602	94.930	35.696	36.184	1.00	18.92	B	O
ATOM	10629	OE2	GLU	602	94.505	37.830	35.981	1.00	16.38	B	O
ATOM	10630	C	GLU	602	95.111	34.838	39.952	1.00	18.97	B	C
ATOM	10631	O	GLU	602	95.170	34.953	41.179	1.00	18.54	B	O
ATOM	10632	N	VAL	603	93.979	34.584	39.296	1.00	19.02	B	N

(Continued)

FIG. 4-218

ATOM	10633	CA	VAL	603	92.696	34.413	39.984	1.00	21.62	B	C
ATOM	10634	CB	VAL	603	91.513	34.471	38.999	1.00	21.51	B	C
ATOM	10635	CG1	VAL	603	90.233	34.055	39.701	1.00	19.24	B	C
ATOM	10636	CG2	VAL	603	91.380	35.876	38.442	1.00	21.00	B	C
ATOM	10637	C	VAL	603	92.643	33.073	40.716	1.00	22.35	B	C
ATOM	10638	O	VAL	603	92.160	32.989	41.848	1.00	21.06	B	O
ATOM	10639	N	GLU	604	93.141	32.031	40.059	1.00	22.98	B	N
ATOM	10640	CA	GLU	604	93.182	30.702	40.656	1.00	26.04	B	C
ATOM	10641	CB	GLU	604	93.721	29.681	39.645	1.00	28.46	B	C
ATOM	10642	CG	GLU	604	92.956	29.671	38.326	1.00	35.94	B	C
ATOM	10643	CD	GLU	604	93.559	28.742	37.273	1.00	40.17	B	C
ATOM	10644	OE1	GLU	604	93.215	28.911	36.076	1.00	40.47	B	O
ATOM	10645	OE2	GLU	604	94.360	27.844	37.637	1.00	41.61	B	O
ATOM	10646	C	GLU	604	94.072	30.705	41.905	1.00	24.63	B	C
ATOM	10647	O	GLU	604	93.657	30.255	42.976	1.00	25.47	B	O
ATOM	10648	N	ASP	605	95.286	31.234	41.775	1.00	22.17	B	N
ATOM	10649	CA	ASP	605	96.213	31.255	42.900	1.00	21.12	B	C
ATOM	10650	CB	ASP	605	97.568	31.827	42.463	1.00	23.09	B	C
ATOM	10651	CG	ASP	605	98.263	30.958	41.414	1.00	24.43	B	C
ATOM	10652	OD1	ASP	605	97.894	29.774	41.266	1.00	26.59	B	O
ATOM	10653	OD2	ASP	605	99.188	31.453	40.742	1.00	25.60	B	O
ATOM	10654	C	ASP	605	95.712	31.967	44.159	1.00	19.42	B	C
ATOM	10655	O	ASP	605	96.099	31.598	45.260	1.00	19.67	B	O
ATOM	10656	N	GLN	606	94.868	32.983	44.014	1.00	17.23	B	N
ATOM	10657	CA	GLN	606	94.337	33.673	45.192	1.00	16.41	B	C
ATOM	10658	CB	GLN	606	93.576	34.951	44.795	1.00	17.09	B	C
ATOM	10659	CG	GLN	606	94.407	36.070	44.165	1.00	15.81	B	C
ATOM	10660	CD	GLN	606	95.332	36.748	45.162	1.00	15.36	B	C
ATOM	10661	OE1	GLN	606	94.879	37.283	46.173	1.00	13.19	B	O
ATOM	10662	NE2	GLN	606	96.637	36.730	44.878	1.00	14.39	B	N
ATOM	10663	C	GLN	606	93.360	32.706	45.878	1.00	15.71	B	C
ATOM	10664	O	GLN	606	93.337	32.583	47.102	1.00	14.30	B	O
ATOM	10665	N	ILE	607	92.549	32.030	45.070	1.00	13.95	B	N
ATOM	10666	CA	ILE	607	91.584	31.076	45.583	1.00	13.95	B	C
ATOM	10667	CB	ILE	607	90.772	30.437	44.448	1.00	12.90	B	C
ATOM	10668	CG2	ILE	607	89.925	29.294	44.996	1.00	11.78	B	C
ATOM	10669	CG1	ILE	607	89.909	31.504	43.773	1.00	12.90	B	C
ATOM	10670	CD1	ILE	607	89.162	31.016	42.560	1.00	11.00	B	C
ATOM	10671	C	ILE	607	92.330	29.985	46.318	1.00	15.04	B	C
ATOM	10672	O	ILE	607	92.008	29.670	47.462	1.00	15.40	B	O
ATOM	10673	N	GLU	608	93.331	29.413	45.652	1.00	16.29	B	N
ATOM	10674	CA	GLU	608	94.144	28.359	46.246	1.00	18.48	B	C
ATOM	10675	CB	GLU	608	95.180	27.864	45.235	1.00	18.74	B	C
ATOM	10676	CG	GLU	608	96.164	26.851	45.792	1.00	22.43	B	C
ATOM	10677	CD	GLU	608	95.498	25.557	46.213	1.00	29.00	B	C
ATOM	10678	OE1	GLU	608	96.096	24.817	47.032	1.00	32.52	B	O
ATOM	10679	OE2	GLU	608	94.382	25.274	45.721	1.00	31.62	B	O
ATOM	10680	C	GLU	608	94.848	28.889	47.501	1.00	20.58	B	C
ATOM	10681	O	GLU	608	95.114	28.138	48.446	1.00	23.01	B	O

(Continued)

FIG. 4-219

ATOM	10682	N	ALA	609	95.150	30.183	47.506	1.00	19.99	B N
ATOM	10683	CA	ALA	609	95.811	30.789	48.646	1.00	21.28	B C
ATOM	10684	CB	ALA	609	96.269	32.196	48.310	1.00	19.81	B C
ATOM	10685	C	ALA	609	94.826	30.819	49.797	1.00	21.63	B C
ATOM	10686	O	ALA	609	95.152	30.426	50.915	1.00	21.88	B O
ATOM	10687	N	ALA	610	93.618	31.286	49.516	1.00	23.07	B N
ATOM	10688	CA	ALA	610	92.580	31.358	50.535	1.00	25.56	B C
ATOM	10689	CB	ALA	610	91.317	31.963	49.957	1.00	25.38	B C
ATOM	10690	C	ALA	610	92.300	29.952	51.024	1.00	26.13	B C
ATOM	10691	O	ALA	610	92.256	29.694	52.223	1.00	25.97	B O
ATOM	10692	N	ARG	611	92.119	29.044	50.073	1.00	28.12	B N
ATOM	10693	CA	ARG	611	91.838	27.647	50.374	1.00	28.88	B C
ATOM	10694	CB	ARG	611	91.886	26.826	49.087	1.00	27.27	B C
ATOM	10695	CG	ARG	611	91.518	25.372	49.260	1.00	28.40	B C
ATOM	10696	CD	ARG	611	91.547	24.668	47.925	1.00	30.54	B C
ATOM	10697	NE	ARG	611	90.501	25.152	47.028	1.00	33.73	B N
ATOM	10698	CZ	ARG	611	90.628	25.223	45.706	1.00	36.39	B C
ATOM	10699	NH1	ARG	611	91.764	24.848	45.129	1.00	38.00	B N
ATOM	10700	NH2	ARG	611	89.615	25.645	44.956	1.00	37.15	B N
ATOM	10701	C	ARG	611	92.826	27.082	51.391	1.00	29.24	B C
ATOM	10702	O	ARG	611	92.446	26.330	52.287	1.00	30.51	B O
ATOM	10703	N	GLN	612	94.092	27.452	51.260	1.00	30.24	B N
ATOM	10704	CA	GLN	612	95.105	26.965	52.182	1.00	30.75	B C
ATOM	10705	CB	GLN	612	96.491	27.029	51.532	1.00	29.62	B C
ATOM	10706	CG	GLN	612	96.738	25.866	50.581	1.00	31.27	B C
ATOM	10707	CD	GLN	612	98.183	25.741	50.150	1.00	32.19	B C
ATOM	10708	OE1	GLN	612	99.097	25.778	50.979	1.00	32.20	B O
ATOM	10709	NE2	GLN	612	98.400	25.578	48.848	1.00	31.86	B N
ATOM	10710	C	GLN	612	95.109	27.691	53.524	1.00	31.36	B C
ATOM	10711	O	GLN	612	95.441	27.095	54.545	1.00	32.39	B O
ATOM	10712	N	PHE	613	94.740	28.969	53.533	1.00	31.39	B N
ATOM	10713	CA	PHE	613	94.705	29.717	54.784	1.00	30.50	B C
ATOM	10714	CB	PHE	613	94.527	31.217	54.538	1.00	30.43	B C
ATOM	10715	CG	PHE	613	95.651	31.853	53.775	1.00	31.06	B C
ATOM	10716	CD1	PHE	613	96.974	31.532	54.058	1.00	32.48	B C
ATOM	10717	CD2	PHE	613	95.385	32.805	52.796	1.00	30.25	B C
ATOM	10718	CE1	PHE	613	98.024	32.156	53.371	1.00	32.97	B C
ATOM	10719	CE2	PHE	613	96.419	33.432	52.109	1.00	31.17	B C
ATOM	10720	CZ	PHE	613	97.742	33.109	52.394	1.00	32.13	B C
ATOM	10721	C	PHE	613	93.531	29.214	55.607	1.00	30.36	B C
ATOM	10722	O	PHE	613	93.572	29.216	56.830	1.00	28.96	B O
ATOM	10723	N	SER	614	92.478	28.786	54.923	1.00	31.88	B N
ATOM	10724	CA	SER	614	91.292	28.286	55.600	1.00	34.43	B C
ATOM	10725	CB	SER	614	90.141	28.104	54.607	1.00	34.30	B C
ATOM	10726	OG	SER	614	90.419	27.055	53.697	1.00	34.39	B O
ATOM	10727	C	SER	614	91.609	26.953	56.264	1.00	35.74	B C
ATOM	10728	O	SER	614	90.908	26.519	57.178	1.00	37.21	B O
ATOM	10729	N	LYS	615	92.670	26.307	55.797	1.00	36.52	B N
ATOM	10730	CA	LYS	615	93.079	25.030	56.350	1.00	37.25	B C

(Continued)

FIG. 4-220

ATOM	10731	CB	LYS	615	93.781	24.196	55.283	1.00	37.94	B C
ATOM	10732	CG	LYS	615	92.839	23.516	54.293	1.00	40.25	B C
ATOM	10733	CD	LYS	615	93.595	23.050	53.053	1.00	42.18	B C
ATOM	10734	CE	LYS	615	94.883	22.317	53.419	1.00	42.76	B C
ATOM	10735	NZ	LYS	615	95.776	22.147	52.237	1.00	43.07	B N
ATOM	10736	C	LYS	615	94.001	25.231	57.544	1.00	37.98	B C
ATOM	10737	O	LYS	615	94.379	24.275	58.217	1.00	40.67	B O
ATOM	10738	N	MET	616	94.373	26.474	57.809	1.00	37.04	B N
ATOM	10739	CA	MET	616	95.240	26.744	58.948	1.00	36.91	B C
ATOM	10740	CB	MET	616	96.021	28.047	58.738	1.00	36.80	B C
ATOM	10741	CG	MET	616	97.042	27.961	57.613	1.00	36.28	B C
ATOM	10742	SD	MET	616	97.847	29.532	57.282	1.00	40.04	B S
ATOM	10743	CE	MET	616	99.135	29.023	56.125	1.00	35.34	B C
ATOM	10744	C	MET	616	94.370	26.817	60.200	1.00	35.92	B C
ATOM	10745	O	MET	616	93.181	27.143	60.130	1.00	35.52	B O
ATOM	10746	N	GLY	617	94.973	26.514	61.343	1.00	33.40	B N
ATOM	10747	CA	GLY	617	94.233	26.505	62.587	1.00	31.05	B C
ATOM	10748	C	GLY	617	93.584	27.783	63.072	1.00	29.42	B C
ATOM	10749	O	GLY	617	92.516	27.729	63.689	1.00	30.60	B O
ATOM	10750	N	PHE	618	94.202	28.926	62.797	1.00	26.74	B N
ATOM	10751	CA	PHE	618	93.676	30.204	63.271	1.00	25.54	B C
ATOM	10752	CB	PHE	618	94.852	31.118	63.636	1.00	26.06	B C
ATOM	10753	CG	PHE	618	95.898	31.216	62.563	1.00	25.52	B C
ATOM	10754	CD1	PHE	618	95.763	32.127	61.523	1.00	25.78	B C
ATOM	10755	CD2	PHE	618	97.012	30.385	62.588	1.00	25.30	B C
ATOM	10756	CE1	PHE	618	96.726	32.214	60.518	1.00	26.10	B C
ATOM	10757	CE2	PHE	618	97.981	30.459	61.590	1.00	26.94	B C
ATOM	10758	CZ	PHE	618	97.836	31.380	60.549	1.00	27.08	B C
ATOM	10759	C	PHE	618	92.706	30.948	62.353	1.00	24.88	B C
ATOM	10760	O	PHE	618	92.319	32.079	62.644	1.00	24.17	B O
ATOM	10761	N	VAL	619	92.297	30.313	61.259	1.00	24.78	B N
ATOM	10762	CA	VAL	619	91.381	30.947	60.324	1.00	25.04	B C
ATOM	10763	CB	VAL	619	91.913	30.876	58.875	1.00	25.17	B C
ATOM	10764	CG1	VAL	619	91.007	31.665	57.945	1.00	23.09	B C
ATOM	10765	CG2	VAL	619	93.326	31.415	58.817	1.00	26.33	B C
ATOM	10766	C	VAL	619	90.004	30.303	60.371	1.00	25.53	B C
ATOM	10767	O	VAL	619	89.873	29.083	60.378	1.00	25.84	B O
ATOM	10768	N	ASP	620	88.981	31.146	60.405	1.00	26.00	B N
ATOM	10769	CA	ASP	620	87.601	30.701	60.449	1.00	26.41	B C
ATOM	10770	CB	ASP	620	86.779	31.717	61.238	1.00	26.64	B C
ATOM	10771	CG	ASP	620	85.324	31.334	61.355	1.00	27.36	B C
ATOM	10772	OD1	ASP	620	84.591	32.074	62.041	1.00	27.95	B O
ATOM	10773	OD2	ASP	620	84.914	30.306	60.765	1.00	26.86	B O
ATOM	10774	C	ASP	620	87.104	30.610	59.011	1.00	27.59	B C
ATOM	10775	O	ASP	620	86.687	31.610	58.435	1.00	27.47	B O
ATOM	10776	N	ASN	621	87.144	29.409	58.438	1.00	29.06	B N
ATOM	10777	CA	ASN	621	86.733	29.213	57.053	1.00	30.04	B C
ATOM	10778	CB	ASN	621	86.925	27.752	56.622	1.00	33.33	B C
ATOM	10779	CG	ASN	621	86.022	26.782	57.377	1.00	36.94	B C

(Continued)

FIG. 4-221

ATOM	10780	OD1	ASN	621	84.795	26.940	57.415	1.00	38.23	B	O
ATOM	10781	ND2	ASN	621	86.630	25.763	57.972	1.00	39.37	B	N
ATOM	10782	C	ASN	621	85.310	29.639	56.756	1.00	29.63	B	C
ATOM	10783	O	ASN	621	84.887	29.626	55.604	1.00	30.93	B	O
ATOM	10784	N	LYS	622	84.563	30.007	57.787	1.00	28.32	B	N
ATOM	10785	CA	LYS	622	83.195	30.441	57.573	1.00	27.00	B	C
ATOM	10786	CB	LYS	622	82.303	29.986	58.740	1.00	29.24	B	C
ATOM	10787	CG	LYS	622	82.062	28.471	58.738	1.00	32.47	B	C
ATOM	10788	CD	LYS	622	81.029	28.002	59.761	1.00	33.84	B	C
ATOM	10789	CE	LYS	622	81.527	28.099	61.197	1.00	35.48	B	C
ATOM	10790	NZ	LYS	622	81.571	29.501	61.703	1.00	36.73	B	N
ATOM	10791	C	LYS	622	83.168	31.957	57.404	1.00	25.42	B	C
ATOM	10792	O	LYS	622	82.145	32.543	57.047	1.00	26.19	B	O
ATOM	10793	N	ARG	623	84.314	32.583	57.642	1.00	21.83	B	N
ATOM	10794	CA	ARG	623	84.436	34.023	57.515	1.00	18.89	B	C
ATOM	10795	CB	ARG	623	84.380	34.664	58.895	1.00	17.53	B	C
ATOM	10796	CG	ARG	623	83.019	34.573	59.510	1.00	16.79	B	C
ATOM	10797	CD	ARG	623	83.122	34.394	60.991	1.00	19.29	B	C
ATOM	10798	NE	ARG	623	83.405	35.632	61.690	1.00	19.11	B	N
ATOM	10799	CZ	ARG	623	84.207	35.718	62.743	1.00	18.68	B	C
ATOM	10800	NH1	ARG	623	84.812	34.639	63.212	1.00	16.76	B	N
ATOM	10801	NH2	ARG	623	84.388	36.884	63.336	1.00	22.60	B	N
ATOM	10802	C	ARG	623	85.711	34.440	56.792	1.00	18.21	B	C
ATOM	10803	O	ARG	623	86.719	34.776	57.414	1.00	19.54	B	O
ATOM	10804	N	ILE	624	85.651	34.412	55.468	1.00	16.09	B	N
ATOM	10805	CA	ILE	624	86.769	34.798	54.629	1.00	16.59	B	C
ATOM	10806	CB	ILE	624	87.439	33.572	53.991	1.00	18.45	B	C
ATOM	10807	CG2	ILE	624	88.563	34.017	53.059	1.00	18.66	B	C
ATOM	10808	CG1	ILE	624	87.971	32.647	55.088	1.00	19.91	B	C
ATOM	10809	CD1	ILE	624	88.623	31.385	54.564	1.00	22.12	B	C
ATOM	10810	C	ILE	624	86.230	35.695	53.519	1.00	16.74	B	C
ATOM	10811	O	ILE	624	85.402	35.268	52.710	1.00	17.92	B	O
ATOM	10812	N	ALA	625	86.688	36.939	53.494	1.00	15.06	B	N
ATOM	10813	CA	ALA	625	86.250	37.886	52.488	1.00	15.59	B	C
ATOM	10814	CB	ALA	625	85.816	39.174	53.155	1.00	18.31	B	C
ATOM	10815	C	ALA	625	87.375	38.159	51.503	1.00	16.90	B	C
ATOM	10816	O	ALA	625	88.431	37.523	51.558	1.00	16.49	B	O
ATOM	10817	N	ILE	626	87.149	39.107	50.598	1.00	16.75	B	N
ATOM	10818	CA	ILE	626	88.158	39.454	49.608	1.00	17.73	B	C
ATOM	10819	CB	ILE	626	88.207	38.397	48.478	1.00	19.21	B	C
ATOM	10820	CG2	ILE	626	86.883	38.365	47.742	1.00	19.01	B	C
ATOM	10821	CG1	ILE	626	89.348	38.713	47.511	1.00	18.94	B	C
ATOM	10822	CD1	ILE	626	89.576	37.642	46.471	1.00	20.78	B	C
ATOM	10823	C	ILE	626	87.850	40.810	49.003	1.00	17.46	B	C
ATOM	10824	O	ILE	626	86.692	41.116	48.754	1.00	18.15	B	O
ATOM	10825	N	TRP	627	88.878	41.628	48.781	1.00	16.65	B	N
ATOM	10826	CA	TRP	627	88.663	42.938	48.177	1.00	15.95	B	C
ATOM	10827	CB	TRP	627	88.215	43.945	49.231	1.00	14.07	B	C
ATOM	10828	CG	TRP	627	89.318	44.713	49.875	1.00	12.00	B	C

(Continued)

FIG. 4-222

ATOM	10829	CD2	TRP	627	89.641	46.084	49.646	1.00	11.41	B	C
ATOM	10830	CE2	TRP	627	90.725	46.410	50.500	1.00	10.99	B	C
ATOM	10831	CE3	TRP	627	89.121	47.074	48.806	1.00	9.75	B	C
ATOM	10832	CD1	TRP	627	90.198	44.267	50.826	1.00	14.55	B	C
ATOM	10833	NE1	TRP	627	91.046	45.283	51.208	1.00	10.25	B	N
ATOM	10834	CZ2	TRP	627	91.289	47.681	50.536	1.00	9.06	B	C
ATOM	10835	CZ3	TRP	627	89.685	48.340	48.844	1.00	9.47	B	C
ATOM	10836	CH2	TRP	627	90.755	48.632	49.702	1.00	8.43	B	C
ATOM	10837	C	TRP	627	89.881	43.489	47.433	1.00	17.27	B	C
ATOM	10838	O	TRP	627	91.027	43.146	47.732	1.00	16.96	B	O
ATOM	10839	N	GLY	628	89.613	44.351	46.459	1.00	16.52	B	N
ATOM	10840	CA	GLY	628	90.672	44.947	45.675	1.00	16.52	B	C
ATOM	10841	C	GLY	628	90.186	46.198	44.975	1.00	17.44	B	C
ATOM	10842	O	GLY	628	88.977	46.441	44.887	1.00	17.88	B	O
ATOM	10843	N	TRP	629	91.132	46.989	44.479	1.00	15.93	B	N
ATOM	10844	CA	TRP	629	90.841	48.235	43.781	1.00	15.93	B	C
ATOM	10845	CB	TRP	629	91.480	49.395	44.552	1.00	13.57	B	C
ATOM	10846	CG	TRP	629	90.867	50.763	44.341	1.00	14.96	B	C
ATOM	10847	CD2	TRP	629	90.389	51.656	45.360	1.00	13.15	B	C
ATOM	10848	CE2	TRP	629	89.944	52.830	44.712	1.00	13.17	B	C
ATOM	10849	CE3	TRP	629	90.296	51.577	46.758	1.00	14.07	B	C
ATOM	10850	CD1	TRP	629	90.694	51.419	43.149	1.00	14.45	B	C
ATOM	10851	NE1	TRP	629	90.141	52.657	43.366	1.00	12.77	B	N
ATOM	10852	CZ2	TRP	629	89.411	53.921	45.414	1.00	13.59	B	C
ATOM	10853	CZ3	TRP	629	89.767	52.660	47.461	1.00	14.81	B	C
ATOM	10854	CH2	TRP	629	89.330	53.820	46.782	1.00	15.16	B	C
ATOM	10855	C	TRP	629	91.481	48.074	42.399	1.00	17.34	B	C
ATOM	10856	O	TRP	629	92.571	47.517	42.285	1.00	18.55	B	O
ATOM	10857	N	SER	630	90.802	48.538	41.354	1.00	17.70	B	N
ATOM	10858	CA	SER	630	91.309	48.430	39.982	1.00	17.70	B	C
ATOM	10859	CB	SER	630	92.649	49.144	39.846	1.00	18.19	B	C
ATOM	10860	OG	SER	630	92.574	50.437	40.404	1.00	24.67	B	O
ATOM	10861	C	SER	630	91.477	46.977	39.563	1.00	17.40	B	C
ATOM	10862	O	SER	630	90.501	46.235	39.469	1.00	18.69	B	O
ATOM	10863	N	TYR	631	92.712	46.565	39.304	1.00	16.34	B	N
ATOM	10864	CA	TYR	631	92.951	45.192	38.904	1.00	15.96	B	C
ATOM	10865	CB	TYR	631	94.430	44.973	38.579	1.00	15.36	B	C
ATOM	10866	CG	TYR	631	94.689	43.709	37.779	1.00	15.93	B	C
ATOM	10867	CD1	TYR	631	94.626	42.450	38.380	1.00	15.38	B	C
ATOM	10868	CE1	TYR	631	94.830	41.287	37.634	1.00	16.25	B	C
ATOM	10869	CD2	TYR	631	94.961	43.773	36.409	1.00	15.67	B	C
ATOM	10870	CE2	TYR	631	95.160	42.620	35.655	1.00	13.59	B	C
ATOM	10871	CZ	TYR	631	95.092	41.384	36.270	1.00	15.96	B	C
ATOM	10872	OH	TYR	631	95.264	40.243	35.525	1.00	14.59	B	O
ATOM	10873	C	TYR	631	92.499	44.286	40.049	1.00	15.68	B	C
ATOM	10874	O	TYR	631	91.949	43.213	39.824	1.00	16.42	B	O
ATOM	10875	N	GLY	632	92.723	44.729	41.281	1.00	15.56	B	N
ATOM	10876	CA	GLY	632	92.292	43.950	42.429	1.00	14.43	B	C
ATOM	10877	C	GLY	632	90.777	43.807	42.398	1.00	13.07	B	C

(Continued)

FIG. 4-223

ATOM	10878	O	GLY	632	90.239	42.771	42.777	1.00	12.09	B	O
ATOM	10879	N	GLY	633	90.087	44.855	41.946	1.00	12.57	B	N
ATOM	10880	CA	GLY	633	88.637	44.800	41.846	1.00	10.88	B	C
ATOM	10881	C	GLY	633	88.271	43.743	40.818	1.00	10.78	B	C
ATOM	10882	O	GLY	633	87.337	42.956	40.986	1.00	9.26	B	O
ATOM	10883	N	TYR	634	89.031	43.729	39.734	1.00	11.33	B	N
ATOM	10884	CA	TYR	634	88.822	42.755	38.682	1.00	11.09	B	C
ATOM	10885	CB	TYR	634	89.860	42.951	37.595	1.00	7.35	B	C
ATOM	10886	CG	TYR	634	89.815	41.899	36.526	1.00	8.04	B	C
ATOM	10887	CD1	TYR	634	90.949	41.162	36.204	1.00	7.58	B	C
ATOM	10888	CE1	TYR	634	90.924	40.218	35.189	1.00	7.56	B	C
ATOM	10889	CD2	TYR	634	88.649	41.660	35.805	1.00	8.82	B	C
ATOM	10890	CE2	TYR	634	88.615	40.715	34.788	1.00	7.88	B	C
ATOM	10891	CZ	TYR	634	89.756	39.996	34.488	1.00	6.90	B	C
ATOM	10892	OH	TYR	634	89.722	39.039	33.504	1.00	8.03	B	O
ATOM	10893	C	TYR	634	88.967	41.358	39.278	1.00	13.02	B	C
ATOM	10894	O	TYR	634	88.038	40.548	39.222	1.00	13.14	B	O
ATOM	10895	N	VAL	635	90.140	41.091	39.858	1.00	14.38	B	N
ATOM	10896	CA	VAL	635	90.426	39.796	40.467	1.00	13.39	B	C
ATOM	10897	CB	VAL	635	91.839	39.747	41.093	1.00	13.28	B	C
ATOM	10898	CG1	VAL	635	91.995	38.467	41.923	1.00	13.06	B	C
ATOM	10899	CG2	VAL	635	92.894	39.782	39.999	1.00	8.09	B	C
ATOM	10900	C	VAL	635	89.412	39.443	41.533	1.00	13.35	B	C
ATOM	10901	O	VAL	635	88.932	38.320	41.563	1.00	15.02	B	O
ATOM	10902	N	THR	636	89.091	40.394	42.405	1.00	13.48	B	N
ATOM	10903	CA	THR	636	88.108	40.160	43.457	1.00	13.74	B	C
ATOM	10904	CB	THR	636	87.788	41.451	44.260	1.00	15.19	B	C
ATOM	10905	OG1	THR	636	88.950	41.886	44.978	1.00	15.24	B	O
ATOM	10906	CG2	THR	636	86.655	41.188	45.259	1.00	13.51	B	C
ATOM	10907	C	THR	636	86.792	39.665	42.862	1.00	14.57	B	C
ATOM	10908	O	THR	636	86.160	38.750	43.395	1.00	15.29	B	O
ATOM	10909	N	SER	637	86.373	40.281	41.762	1.00	15.59	B	N
ATOM	10910	CA	SER	637	85.120	39.905	41.112	1.00	15.99	B	C
ATOM	10911	CB	SER	637	84.698	40.974	40.102	1.00	16.88	B	C
ATOM	10912	OG	SER	637	84.303	42.158	40.766	1.00	18.07	B	O
ATOM	10913	C	SER	637	85.195	38.558	40.420	1.00	16.54	B	C
ATOM	10914	O	SER	637	84.250	37.773	40.487	1.00	17.87	B	O
ATOM	10915	N	MET	638	86.309	38.300	39.740	1.00	15.64	B	N
ATOM	10916	CA	MET	638	86.493	37.030	39.052	1.00	15.55	B	C
ATOM	10917	CB	MET	638	87.807	37.033	38.272	1.00	15.97	B	C
ATOM	10918	CG	MET	638	87.822	37.959	37.067	1.00	17.38	B	C
ATOM	10919	SD	MET	638	86.715	37.422	35.736	1.00	19.14	B	S
ATOM	10920	CE	MET	638	87.806	36.324	34.798	1.00	15.28	B	C
ATOM	10921	C	MET	638	86.511	35.913	40.093	1.00	17.56	B	C
ATOM	10922	O	MET	638	86.018	34.807	39.843	1.00	17.45	B	O
ATOM	10923	N	VAL	639	87.086	36.199	41.260	1.00	16.50	B	N
ATOM	10924	CA	VAL	639	87.133	35.207	42.317	1.00	17.27	B	C
ATOM	10925	CB	VAL	639	88.047	35.640	43.480	1.00	16.78	B	C
ATOM	10926	CG1	VAL	639	87.648	34.884	44.757	1.00	16.23	B	C

(Continued)

FIG. 4-224

ATOM	10927	CG2	VAL	639	89.495	35.335	43.139	1.00	14.45	B	C
ATOM	10928	C	VAL	639	85.742	34.919	42.875	1.00	17.57	B	C
ATOM	10929	O	VAL	639	85.387	33.760	43.081	1.00	18.52	B	O
ATOM	10930	N	LEU	640	84.957	35.964	43.124	1.00	16.90	B	N
ATOM	10931	CA	LEU	640	83.618	35.766	43.661	1.00	17.42	B	C
ATOM	10932	CB	LEU	640	82.978	37.098	44.032	1.00	17.45	B	C
ATOM	10933	CG	LEU	640	83.512	37.699	45.327	1.00	17.52	B	C
ATOM	10934	CD1	LEU	640	82.743	38.962	45.654	1.00	14.30	B	C
ATOM	10935	CD2	LEU	640	83.378	36.677	46.447	1.00	15.97	B	C
ATOM	10936	C	LEU	640	82.713	35.020	42.699	1.00	17.81	B	C
ATOM	10937	O	LEU	640	81.821	34.284	43.119	1.00	20.73	B	O
ATOM	10938	N	GLY	641	82.952	35.198	41.409	1.00	18.14	B	N
ATOM	10939	CA	GLY	641	82.135	34.526	40.418	1.00	17.61	B	C
ATOM	10940	C	GLY	641	82.758	33.235	39.936	1.00	17.52	B	C
ATOM	10941	O	GLY	641	82.346	32.697	38.911	1.00	15.15	B	O
ATOM	10942	N	SER	642	83.735	32.727	40.683	1.00	17.53	B	N
ATOM	10943	CA	SER	642	84.419	31.497	40.297	1.00	19.98	B	C
ATOM	10944	CB	SER	642	85.841	31.479	40.864	1.00	20.78	B	C
ATOM	10945	OG	SER	642	85.849	31.088	42.226	1.00	21.56	B	O
ATOM	10946	C	SER	642	83.691	30.239	40.755	1.00	21.75	B	C
ATOM	10947	O	SER	642	83.974	29.147	40.265	1.00	22.65	B	O
ATOM	10948	N	GLY	643	82.768	30.395	41.701	1.00	22.05	B	N
ATOM	10949	CA	GLY	643	82.023	29.258	42.210	1.00	22.58	B	C
ATOM	10950	C	GLY	643	82.811	28.335	43.130	1.00	24.03	B	C
ATOM	10951	O	GLY	643	82.460	27.162	43.271	1.00	26.05	B	O
ATOM	10952	N	SER	644	83.859	28.849	43.772	1.00	22.41	B	N
ATOM	10953	CA	SER	644	84.684	28.024	44.656	1.00	21.56	B	C
ATOM	10954	CB	SER	644	86.065	28.657	44.833	1.00	21.02	B	C
ATOM	10955	OG	SER	644	85.992	29.798	45.666	1.00	22.35	B	O
ATOM	10956	C	SER	644	84.084	27.773	46.037	1.00	21.06	B	C
ATOM	10957	O	SER	644	84.451	26.807	46.707	1.00	23.51	B	O
ATOM	10958	N	GLY	645	83.175	28.643	46.469	1.00	19.50	B	N
ATOM	10959	CA	GLY	645	82.561	28.485	47.774	1.00	16.85	B	C
ATOM	10960	C	GLY	645	83.484	28.868	48.920	1.00	18.76	B	C
ATOM	10961	O	GLY	645	83.111	28.771	50.090	1.00	18.32	B	O
ATOM	10962	N	VAL	646	84.691	29.320	48.591	1.00	18.97	B	N
ATOM	10963	CA	VAL	646	85.669	29.695	49.612	1.00	18.18	B	C
ATOM	10964	CB	VAL	646	87.095	29.718	49.029	1.00	19.50	B	C
ATOM	10965	CG1	VAL	646	88.082	30.202	50.086	1.00	17.45	B	C
ATOM	10966	CG2	VAL	646	87.471	28.341	48.516	1.00	17.29	B	C
ATOM	10967	C	VAL	646	85.433	31.051	50.266	1.00	18.24	B	C
ATOM	10968	O	VAL	646	85.860	31.270	51.396	1.00	20.76	B	O
ATOM	10969	N	PHE	647	84.763	31.957	49.561	1.00	16.76	B	N
ATOM	10970	CA	PHE	647	84.525	33.297	50.082	1.00	16.60	B	C
ATOM	10971	CB	PHE	647	85.066	34.337	49.094	1.00	16.44	B	C
ATOM	10972	CG	PHE	647	86.528	34.204	48.820	1.00	15.63	B	C
ATOM	10973	CD1	PHE	647	87.455	34.941	49.553	1.00	14.72	B	C
ATOM	10974	CD2	PHE	647	86.985	33.320	47.844	1.00	14.49	B	C
ATOM	10975	CE1	PHE	647	88.826	34.800	49.317	1.00	16.66	B	C

(Continued)

FIG. 4-225

ATOM	10976	CE2	PHE	647	88.356	33.170	47.600	1.00	16.73	B	C
ATOM	10977	CZ	PHE	647	89.278	33.913	48.338	1.00	13.35	B	C
ATOM	10978	C	PHE	647	83.068	33.604	50.365	1.00	16.77	B	C
ATOM	10979	O	PHE	647	82.194	33.328	49.551	1.00	17.32	B	O
ATOM	10980	N	LYS	648	82.819	34.214	51.515	1.00	16.74	B	N
ATOM	10981	CA	LYS	648	81.466	34.565	51.905	1.00	19.64	B	C
ATOM	10982	CB	LYS	648	81.369	34.634	53.429	1.00	19.84	B	C
ATOM	10983	CG	LYS	648	80.069	35.233	53.911	1.00	21.93	B	C
ATOM	10984	CD	LYS	648	79.876	35.060	55.393	1.00	23.19	B	C
ATOM	10985	CE	LYS	648	78.548	35.645	55.814	1.00	24.97	B	C
ATOM	10986	NZ	LYS	648	78.180	35.150	57.165	1.00	31.55	B	N
ATOM	10987	C	LYS	648	81.019	35.900	51.308	1.00	21.05	B	C
ATOM	10988	O	LYS	648	79.851	36.070	50.930	1.00	20.25	B	O
ATOM	10989	N	CYS	649	81.954	36.842	51.237	1.00	20.69	B	N
ATOM	10990	CA	CYS	649	81.670	38.163	50.711	1.00	21.97	B	C
ATOM	10991	C	CYS	649	82.928	38.811	50.134	1.00	22.72	B	C
ATOM	10992	O	CYS	649	84.054	38.437	50.477	1.00	23.68	B	O
ATOM	10993	CB	CYS	649	81.124	39.045	51.822	1.00	23.52	B	C
ATOM	10994	SG	CYS	649	82.287	39.215	53.208	1.00	26.89	B	S
ATOM	10995	N	GLY	650	82.728	39.796	49.267	1.00	20.11	B	N
ATOM	10996	CA	GLY	650	83.850	40.476	48.668	1.00	18.42	B	C
ATOM	10997	C	GLY	650	83.484	41.895	48.308	1.00	18.08	B	C
ATOM	10998	O	GLY	650	82.308	42.198	48.135	1.00	18.19	B	O
ATOM	10999	N	ILE	651	84.490	42.764	48.209	1.00	17.42	B	N
ATOM	11000	CA	ILE	651	84.284	44.162	47.851	1.00	15.98	B	C
ATOM	11001	CB	ILE	651	84.632	45.117	49.014	1.00	15.40	B	C
ATOM	11002	CG2	ILE	651	84.386	46.559	48.589	1.00	15.87	B	C
ATOM	11003	CG1	ILE	651	83.789	44.786	50.242	1.00	15.95	B	C
ATOM	11004	CD1	ILE	651	84.017	45.721	51.411	1.00	14.84	B	C
ATOM	11005	C	ILE	651	85.190	44.512	46.679	1.00	16.40	B	C
ATOM	11006	O	ILE	651	86.404	44.330	46.754	1.00	16.63	B	O
ATOM	11007	N	ALA	652	84.594	45.025	45.608	1.00	16.04	B	N
ATOM	11008	CA	ALA	652	85.330	45.409	44.413	1.00	15.10	B	C
ATOM	11009	CB	ALA	652	84.809	44.629	43.214	1.00	16.38	B	C
ATOM	11010	C	ALA	652	85.190	46.908	44.153	1.00	15.88	B	C
ATOM	11011	O	ALA	652	84.089	47.399	43.895	1.00	14.37	B	O
ATOM	11012	N	VAL	653	86.308	47.630	44.214	1.00	15.73	B	N
ATOM	11013	CA	VAL	653	86.298	49.070	43.978	1.00	15.50	B	C
ATOM	11014	CB	VAL	653	87.110	49.831	45.055	1.00	17.97	B	C
ATOM	11015	CG1	VAL	653	87.050	51.327	44.787	1.00	18.06	B	C
ATOM	11016	CG2	VAL	653	86.566	49.525	46.446	1.00	18.80	B	C
ATOM	11017	C	VAL	653	86.905	49.398	42.624	1.00	15.11	B	C
ATOM	11018	O	VAL	653	88.071	49.087	42.373	1.00	14.41	B	O
ATOM	11019	N	ALA	654	86.106	50.031	41.766	1.00	14.05	B	N
ATOM	11020	CA	ALA	654	86.532	50.438	40.427	1.00	12.10	B	C
ATOM	11021	CB	ALA	654	87.424	51.655	40.518	1.00	12.15	B	C
ATOM	11022	C	ALA	654	87.258	49.318	39.700	1.00	12.48	B	C
ATOM	11023	O	ALA	654	88.364	49.500	39.192	1.00	13.17	B	O
ATOM	11024	N	PRO	655	86.633	48.141	39.626	1.00	11.84	B	N

(Continued)

FIG. 4-226

ATOM	11025	CD	PRO	655	85.273	47.797	40.088	1.00	11.50	B	C
ATOM	11026	CA	PRO	655	87.247	47.003	38.954	1.00	11.05	B	C
ATOM	11027	CB	PRO	655	86.399	45.841	39.436	1.00	11.09	B	C
ATOM	11028	CG	PRO	655	85.030	46.451	39.428	1.00	8.50	B	C
ATOM	11029	C	PRO	655	87.190	47.102	37.447	1.00	10.92	B	C
ATOM	11030	O	PRO	655	86.383	47.847	36.896	1.00	11.41	B	O
ATOM	11031	N	VAL	656	88.066	46.352	36.791	1.00	9.60	B	N
ATOM	11032	CA	VAL	656	88.052	46.250	35.345	1.00	9.08	B	C
ATOM	11033	CB	VAL	656	89.452	45.888	34.790	1.00	7.45	B	C
ATOM	11034	CG1	VAL	656	89.336	45.163	33.451	1.00	5.90	B	C
ATOM	11035	CG2	VAL	656	90.249	47.146	34.601	1.00	7.63	B	C
ATOM	11036	C	VAL	656	87.107	45.056	35.224	1.00	10.20	B	C
ATOM	11037	O	VAL	656	87.157	44.152	36.058	1.00	10.59	B	O
ATOM	11038	N	SER	657	86.231	45.038	34.230	1.00	11.76	B	N
ATOM	11039	CA	SER	657	85.313	43.908	34.115	1.00	14.03	B	C
ATOM	11040	CB	SER	657	83.867	44.375	34.271	1.00	13.85	B	C
ATOM	11041	OG	SER	657	83.495	45.242	33.218	1.00	15.07	B	O
ATOM	11042	C	SER	657	85.456	43.153	32.812	1.00	14.66	B	C
ATOM	11043	O	SER	657	85.191	41.952	32.743	1.00	17.18	B	O
ATOM	11044	N	ARG	658	85.887	43.860	31.781	1.00	14.15	B	N
ATOM	11045	CA	ARG	658	86.050	43.277	30.459	1.00	13.24	B	C
ATOM	11046	CB	ARG	658	84.768	43.532	29.670	1.00	14.22	B	C
ATOM	11047	CG	ARG	658	84.763	43.086	28.231	1.00	18.57	B	C
ATOM	11048	CD	ARG	658	83.436	43.470	27.588	1.00	19.40	B	C
ATOM	11049	NE	ARG	658	83.475	43.338	26.138	1.00	23.11	B	N
ATOM	11050	CZ	ARG	658	82.868	42.376	25.454	1.00	22.54	B	C
ATOM	11051	NH1	ARG	658	82.167	41.445	26.088	1.00	21.95	B	N
ATOM	11052	NH2	ARG	658	82.955	42.361	24.131	1.00	22.77	B	N
ATOM	11053	C	ARG	658	87.242	44.014	29.857	1.00	12.76	B	C
ATOM	11054	O	ARG	658	87.218	45.239	29.733	1.00	11.97	B	O
ATOM	11055	N	TRP	659	88.282	43.283	29.476	1.00	11.05	B	N
ATOM	11056	CA	TRP	659	89.468	43.942	28.955	1.00	12.23	B	C
ATOM	11057	CB	TRP	659	90.578	42.918	28.777	1.00	11.99	B	C
ATOM	11058	CG	TRP	659	91.026	42.392	30.112	1.00	13.26	B	C
ATOM	11059	CD2	TRP	659	91.729	43.120	31.122	1.00	12.61	B	C
ATOM	11060	CE2	TRP	659	91.848	42.271	32.242	1.00	13.22	B	C
ATOM	11061	CE3	TRP	659	92.268	44.412	31.193	1.00	14.19	B	C
ATOM	11062	CD1	TRP	659	90.759	41.163	30.644	1.00	13.17	B	C
ATOM	11063	NE1	TRP	659	91.247	41.083	31.920	1.00	13.29	B	N
ATOM	11064	CZ2	TRP	659	92.489	42.670	33.424	1.00	13.99	B	C
ATOM	11065	CZ3	TRP	659	92.909	44.810	32.373	1.00	13.35	B	C
ATOM	11066	CH2	TRP	659	93.011	43.940	33.468	1.00	11.92	B	C
ATOM	11067	C	TRP	659	89.338	44.840	27.730	1.00	13.23	B	C
ATOM	11068	O	TRP	659	90.118	45.766	27.569	1.00	15.39	B	O
ATOM	11069	N	GLU	660	88.361	44.595	26.871	1.00	14.59	B	N
ATOM	11070	CA	GLU	660	88.181	45.453	25.708	1.00	15.33	B	C
ATOM	11071	CB	GLU	660	87.147	44.854	24.743	1.00	18.10	B	C
ATOM	11072	CG	GLU	660	87.572	43.527	24.130	1.00	21.82	B	C
ATOM	11073	CD	GLU	660	86.452	42.829	23.386	1.00	25.49	B	C

(Continued)

FIG. 4-227

ATOM	11074	OE1	GLU	660	86.087	43.278	22.279	1.00	29.78	B O
ATOM	11075	OE2	GLU	660	85.929	41.825	23.914	1.00	26.73	B O
ATOM	11076	C	GLU	660	87.719	46.833	26.170	1.00	14.88	B C
ATOM	11077	O	GLU	660	87.661	47.769	25.375	1.00	14.50	B O
ATOM	11078	N	TYR	661	87.371	46.960	27.450	1.00	14.66	B N
ATOM	11079	CA	TYR	661	86.941	48.258	27.977	1.00	15.13	B C
ATOM	11080	CB	TYR	661	85.988	48.119	29.168	1.00	15.73	B C
ATOM	11081	CG	TYR	661	84.599	47.597	28.872	1.00	19.12	B C
ATOM	11082	CD1	TYR	661	83.823	47.053	29.898	1.00	18.37	B C
ATOM	11083	CE1	TYR	661	82.553	46.548	29.653	1.00	19.84	B C
ATOM	11084	CD2	TYR	661	84.061	47.629	27.581	1.00	19.07	B C
ATOM	11085	CE2	TYR	661	82.782	47.123	27.323	1.00	20.28	B C
ATOM	11086	CZ	TYR	661	82.035	46.581	28.367	1.00	20.80	B C
ATOM	11087	OH	TYR	661	80.785	46.046	28.142	1.00	20.60	B O
ATOM	11088	C	TYR	661	88.146	49.045	28.464	1.00	14.96	B C
ATOM	11089	O	TYR	661	88.083	50.266	28.555	1.00	14.55	B O
ATOM	11090	N	TYR	662	89.239	48.355	28.789	1.00	14.46	B N
ATOM	11091	CA	TYR	662	90.411	49.060	29.289	1.00	15.14	B C
ATOM	11092	CB	TYR	662	91.225	48.182	30.240	1.00	13.98	B C
ATOM	11093	CG	TYR	662	92.049	49.021	31.187	1.00	14.52	B C
ATOM	11094	CD1	TYR	662	93.379	48.699	31.468	1.00	14.22	B C
ATOM	11095	CE1	TYR	662	94.168	49.531	32.255	1.00	11.31	B C
ATOM	11096	CD2	TYR	662	91.522	50.194	31.734	1.00	13.44	B C
ATOM	11097	CE2	TYR	662	92.297	51.030	32.520	1.00	13.70	B C
ATOM	11098	CZ	TYR	662	93.620	50.699	32.776	1.00	13.69	B C
ATOM	11099	OH	TYR	662	94.395	51.549	33.532	1.00	12.84	B O
ATOM	11100	C	TYR	662	91.309	49.615	28.182	1.00	15.44	B C
ATOM	11101	O	TYR	662	91.095	49.337	26.996	1.00	15.06	B O
ATOM	11102	N	ASP	663	92.310	50.405	28.569	1.00	13.90	B N
ATOM	11103	CA	ASP	663	93.192	51.026	27.588	1.00	13.58	B C
ATOM	11104	CB	ASP	663	93.961	52.192	28.238	1.00	13.61	B C
ATOM	11105	CG	ASP	663	95.093	51.741	29.152	1.00	14.10	B C
ATOM	11106	OD1	ASP	663	95.223	52.327	30.243	1.00	12.30	B O
ATOM	11107	OD2	ASP	663	95.869	50.836	28.780	1.00	13.70	B O
ATOM	11108	C	ASP	663	94.139	50.076	26.850	1.00	13.21	B C
ATOM	11109	O	ASP	663	94.565	49.045	27.378	1.00	13.05	B O
ATOM	11110	N	SER	664	94.453	50.444	25.612	1.00	13.86	B N
ATOM	11111	CA	SER	664	95.321	49.658	24.738	1.00	13.65	B C
ATOM	11112	CB	SER	664	95.464	50.364	23.394	1.00	14.44	B C
ATOM	11113	OG	SER	664	96.055	51.642	23.550	1.00	16.79	B O
ATOM	11114	C	SER	664	96.714	49.340	25.278	1.00	13.42	B C
ATOM	11115	O	SER	664	97.066	48.176	25.438	1.00	12.83	B O
ATOM	11116	N	VAL	665	97.503	50.371	25.559	1.00	12.98	B N
ATOM	11117	CA	VAL	665	98.865	50.158	26.041	1.00	15.86	B C
ATOM	11118	CB	VAL	665	99.547	51.496	26.427	1.00	14.66	B C
ATOM	11119	CG1	VAL	665	101.023	51.263	26.663	1.00	14.68	B C
ATOM	11120	CG2	VAL	665	99.354	52.519	25.327	1.00	15.28	B C
ATOM	11121	C	VAL	665	99.020	49.169	27.206	1.00	15.25	B C
ATOM	11122	O	VAL	665	99.972	48.400	27.242	1.00	15.22	B O

(Continued)

FIG. 4-228

ATOM	11123	N	TYR	666	98.091	49.184	28.154	1.00	17.07	B	N
ATOM	11124	CA	TYR	666	98.175	48.276	29.299	1.00	15.32	B	C
ATOM	11125	CB	TYR	666	97.504	48.896	30.531	1.00	13.28	B	C
ATOM	11126	CG	TYR	666	97.483	47.997	31.751	1.00	12.79	B	C
ATOM	11127	CD1	TYR	666	96.595	46.920	31.845	1.00	12.27	B	C
ATOM	11128	CE1	TYR	666	96.583	46.089	32.964	1.00	12.60	B	C
ATOM	11129	CD2	TYR	666	98.360	48.215	32.809	1.00	12.83	B	C
ATOM	11130	CE2	TYR	666	98.361	47.390	33.928	1.00	11.79	B	C
ATOM	11131	CZ	TYR	666	97.472	46.332	34.005	1.00	13.90	B	C
ATOM	11132	OH	TYR	666	97.471	45.531	35.131	1.00	12.51	B	O
ATOM	11133	C	TYR	666	97.550	46.922	29.023	1.00	15.26	B	C
ATOM	11134	O	TYR	666	98.103	45.895	29.399	1.00	18.30	B	O
ATOM	11135	N	THR	667	96.401	46.912	28.365	1.00	14.70	B	N
ATOM	11136	CA	THR	667	95.712	45.656	28.097	1.00	13.70	B	C
ATOM	11137	CB	THR	667	94.264	45.925	27.656	1.00	12.07	B	C
ATOM	11138	OG1	THR	667	93.617	46.756	28.635	1.00	11.17	B	O
ATOM	11139	CG2	THR	667	93.498	44.624	27.533	1.00	10.21	B	C
ATOM	11140	C	THR	667	96.423	44.792	27.067	1.00	15.29	B	C
ATOM	11141	O	THR	667	96.713	43.626	27.323	1.00	16.16	B	O
ATOM	11142	N	GLU	668	96.707	45.372	25.906	1.00	16.99	B	N
ATOM	11143	CA	GLU	668	97.389	44.672	24.823	1.00	16.90	B	C
ATOM	11144	CB	GLU	668	97.537	45.612	23.625	1.00	17.50	B	C
ATOM	11145	CG	GLU	668	96.231	45.808	22.867	1.00	21.31	B	C
ATOM	11146	CD	GLU	668	96.275	46.928	21.850	1.00	22.06	B	C
ATOM	11147	OE1	GLU	668	97.284	47.054	21.123	1.00	25.39	B	O
ATOM	11148	OE2	GLU	668	95.284	47.679	21.767	1.00	22.03	B	O
ATOM	11149	C	GLU	668	98.751	44.127	25.247	1.00	17.77	B	C
ATOM	11150	O	GLU	668	99.186	43.079	24.766	1.00	19.28	B	O
ATOM	11151	N	ARG	669	99.418	44.827	26.158	1.00	17.62	B	N
ATOM	11152	CA	ARG	669	100.721	44.392	26.640	1.00	17.00	B	C
ATOM	11153	CB	ARG	669	101.199	45.291	27.785	1.00	17.11	B	C
ATOM	11154	CG	ARG	669	102.498	44.828	28.451	1.00	15.99	B	C
ATOM	11155	CD	ARG	669	102.878	45.766	29.583	1.00	15.35	B	C
ATOM	11156	NE	ARG	669	102.914	47.149	29.122	1.00	16.25	B	N
ATOM	11157	CZ	ARG	669	102.549	48.196	29.856	1.00	16.96	B	C
ATOM	11158	NH1	ARG	669	102.115	48.023	31.101	1.00	16.86	B	N
ATOM	11159	NH2	ARG	669	102.602	49.417	29.340	1.00	14.86	B	N
ATOM	11160	C	ARG	669	100.633	42.960	27.140	1.00	17.70	B	C
ATOM	11161	O	ARG	669	101.523	42.141	26.899	1.00	17.72	B	O
ATOM	11162	N	TYR	670	99.539	42.655	27.825	1.00	17.60	B	N
ATOM	11163	CA	TYR	670	99.357	41.333	28.385	1.00	16.56	B	C
ATOM	11164	CB	TYR	670	98.823	41.465	29.810	1.00	15.82	B	C
ATOM	11165	CG	TYR	670	99.571	42.491	30.631	1.00	15.47	B	C
ATOM	11166	CD1	TYR	670	98.978	43.706	30.973	1.00	14.06	B	C
ATOM	11167	CE1	TYR	670	99.680	44.676	31.676	1.00	14.36	B	C
ATOM	11168	CD2	TYR	670	100.894	42.268	31.024	1.00	15.93	B	C
ATOM	11169	CE2	TYR	670	101.608	43.232	31.732	1.00	15.78	B	C
ATOM	11170	CZ	TYR	670	100.998	44.433	32.051	1.00	15.30	B	C
ATOM	11171	OH	TYR	670	101.713	45.403	32.714	1.00	15.22	B	O

(Continued)

FIG. 4-229

ATOM	11172	C	TYR	670	98.435	40.441	27.578	1.00	17.87	B	C
ATOM	11173	O	TYR	670	98.637	39.231	27.508	1.00	18.02	B	O
ATOM	11174	N	MET	671	97.435	41.040	26.948	1.00	18.57	B	N
ATOM	11175	CA	MET	671	96.452	40.271	26.199	1.00	19.04	B	C
ATOM	11176	CB	MET	671	95.063	40.844	26.482	1.00	21.47	B	C
ATOM	11177	CG	MET	671	94.604	40.692	27.919	1.00	21.74	B	C
ATOM	11178	SD	MET	671	94.228	38.972	28.277	1.00	28.61	B	S
ATOM	11179	CE	MET	671	92.570	38.871	27.582	1.00	23.84	B	C
ATOM	11180	C	MET	671	96.640	40.164	24.692	1.00	19.95	B	C
ATOM	11181	O	MET	671	96.121	39.240	24.075	1.00	20.85	B	O
ATOM	11182	N	GLY	672	97.380	41.092	24.094	1.00	20.28	B	N
ATOM	11183	CA	GLY	672	97.540	41.063	22.654	1.00	19.08	B	C
ATOM	11184	C	GLY	672	96.354	41.807	22.068	1.00	21.12	B	C
ATOM	11185	O	GLY	672	95.746	42.629	22.755	1.00	21.18	B	O
ATOM	11186	N	LEU	673	96.009	41.534	20.814	1.00	21.68	B	N
ATOM	11187	CA	LEU	673	94.884	42.225	20.186	1.00	21.44	B	C
ATOM	11188	CB	LEU	673	95.204	42.569	18.732	1.00	22.03	B	C
ATOM	11189	CG	LEU	673	96.287	43.627	18.507	1.00	24.89	B	C
ATOM	11190	CD1	LEU	673	96.518	43.837	17.023	1.00	23.45	B	C
ATOM	11191	CD2	LEU	673	95.846	44.932	19.150	1.00	27.67	B	C
ATOM	11192	C	LEU	673	93.616	41.399	20.243	1.00	21.68	B	C
ATOM	11193	O	LEU	673	93.647	40.173	20.076	1.00	21.49	B	O
ATOM	11194	N	PRO	674	92.475	42.061	20.487	1.00	21.61	B	N
ATOM	11195	CD	PRO	674	92.342	43.487	20.830	1.00	20.79	B	C
ATOM	11196	CA	PRO	674	91.180	41.388	20.571	1.00	20.99	B	C
ATOM	11197	CB	PRO	674	90.365	42.347	21.420	1.00	19.09	B	C
ATOM	11198	CG	PRO	674	90.845	43.664	20.941	1.00	18.24	B	C
ATOM	11199	C	PRO	674	90.589	41.155	19.183	1.00	21.53	B	C
ATOM	11200	O	PRO	674	89.470	41.561	18.884	1.00	20.30	B	O
ATOM	11201	N	THR	675	91.378	40.505	18.335	1.00	23.61	B	N
ATOM	11202	CA	THR	675	90.973	40.176	16.975	1.00	23.43	B	C
ATOM	11203	CB	THR	675	92.045	40.560	15.957	1.00	22.99	B	C
ATOM	11204	OG1	THR	675	93.221	39.783	16.200	1.00	24.15	B	O
ATOM	11205	CG2	THR	675	92.386	42.039	16.062	1.00	21.26	B	C
ATOM	11206	C	THR	675	90.825	38.668	16.931	1.00	25.46	B	C
ATOM	11207	O	THR	675	91.424	37.952	17.736	1.00	25.82	B	O
ATOM	11208	N	PRO	676	90.023	38.160	15.991	1.00	26.60	B	N
ATOM	11209	CD	PRO	676	89.130	38.885	15.074	1.00	25.76	B	C
ATOM	11210	CA	PRO	676	89.823	36.714	15.877	1.00	26.64	B	C
ATOM	11211	CB	PRO	676	88.860	36.599	14.702	1.00	25.84	B	C
ATOM	11212	CG	PRO	676	88.066	37.859	14.801	1.00	24.99	B	C
ATOM	11213	C	PRO	676	91.135	35.967	15.630	1.00	28.63	B	C
ATOM	11214	O	PRO	676	91.347	34.875	16.160	1.00	28.85	B	O
ATOM	11215	N	GLU	677	92.021	36.557	14.834	1.00	30.55	B	N
ATOM	11216	CA	GLU	677	93.286	35.905	14.534	1.00	31.94	B	C
ATOM	11217	CB	GLU	677	93.772	36.290	13.135	1.00	35.44	B	C
ATOM	11218	CG	GLU	677	94.177	35.077	12.294	1.00	41.76	B	C
ATOM	11219	CD	GLU	677	92.984	34.204	11.897	1.00	46.15	B	C
ATOM	11220	OE1	GLU	677	92.234	34.610	10.980	1.00	49.52	B	O

(Continued)

FIG. 4-230

ATOM	11221	OE2	GLU	677	92.789	33.121	12.503	1.00	46.47	B	O
ATOM	11222	C	GLU	677	94.382	36.174	15.563	1.00	31.51	B	C
ATOM	11223	O	GLU	677	95.565	35.938	15.305	1.00	31.18	B	O
ATOM	11224	N	ASP	678	94.003	36.680	16.730	1.00	29.04	B	N
ATOM	11225	CA	ASP	678	95.005	36.896	17.756	1.00	26.71	B	C
ATOM	11226	CB	ASP	678	95.359	38.374	17.917	1.00	25.30	B	C
ATOM	11227	CG	ASP	678	96.500	38.586	18.902	1.00	26.53	B	C
ATOM	11228	OD1	ASP	678	97.004	39.721	19.008	1.00	29.18	B	O
ATOM	11229	OD2	ASP	678	96.900	37.612	19.579	1.00	24.47	B	O
ATOM	11230	C	ASP	678	94.586	36.325	19.098	1.00	25.24	B	C
ATOM	11231	O	ASP	678	94.946	35.200	19.426	1.00	26.23	B	O
ATOM	11232	N	ASN	679	93.814	37.082	19.871	1.00	24.14	B	N
ATOM	11233	CA	ASN	679	93.418	36.608	21.186	1.00	22.47	B	C
ATOM	11234	CB	ASN	679	94.456	37.089	22.217	1.00	23.05	B	C
ATOM	11235	CG	ASN	679	94.390	36.323	23.524	1.00	22.50	B	C
ATOM	11236	OD1	ASN	679	94.644	36.880	24.592	1.00	21.44	B	O
ATOM	11237	ND2	ASN	679	94.059	35.037	23.448	1.00	22.30	B	N
ATOM	11238	C	ASN	679	92.019	37.061	21.596	1.00	21.85	B	C
ATOM	11239	O	ASN	679	91.727	37.174	22.785	1.00	21.56	B	O
ATOM	11240	N	LEU	680	91.153	37.316	20.619	1.00	22.96	B	N
ATOM	11241	CA	LEU	680	89.783	37.750	20.913	1.00	22.05	B	C
ATOM	11242	CB	LEU	680	88.999	37.967	19.617	1.00	20.94	B	C
ATOM	11243	CG	LEU	680	87.524	38.379	19.734	1.00	20.98	B	C
ATOM	11244	CD1	LEU	680	87.385	39.671	20.539	1.00	21.18	B	C
ATOM	11245	CD2	LEU	680	86.946	38.567	18.348	1.00	17.15	B	C
ATOM	11246	C	LEU	680	89.031	36.762	21.805	1.00	22.36	B	C
ATOM	11247	O	LEU	680	88.316	37.171	22.718	1.00	23.81	B	O
ATOM	11248	N	ASP	681	89.193	35.466	21.555	1.00	22.95	B	N
ATOM	11249	CA	ASP	681	88.502	34.469	22.371	1.00	24.27	B	C
ATOM	11250	CB	ASP	681	88.910	33.048	21.980	1.00	24.73	B	C
ATOM	11251	CG	ASP	681	88.270	32.587	20.695	1.00	25.98	B	C
ATOM	11252	OD1	ASP	681	87.453	33.334	20.116	1.00	28.21	B	O
ATOM	11253	OD2	ASP	681	88.587	31.462	20.259	1.00	28.60	B	O
ATOM	11254	C	ASP	681	88.754	34.655	23.862	1.00	23.99	B	C
ATOM	11255	O	ASP	681	87.816	34.640	24.660	1.00	24.77	B	O
ATOM	11256	N	HIS	682	90.014	34.819	24.252	1.00	22.66	B	N
ATOM	11257	CA	HIS	682	90.289	34.998	25.667	1.00	22.62	B	C
ATOM	11258	CB	HIS	682	91.775	34.867	25.981	1.00	23.03	B	C
ATOM	11259	CG	HIS	682	92.063	34.898	27.448	1.00	25.79	B	C
ATOM	11260	CD2	HIS	682	92.844	35.718	28.190	1.00	26.73	B	C
ATOM	11261	ND1	HIS	682	91.458	34.035	28.338	1.00	25.30	B	N
ATOM	11262	CE1	HIS	682	91.852	34.326	29.565	1.00	26.50	B	C
ATOM	11263	NE2	HIS	682	92.693	35.344	29.504	1.00	26.09	B	N
ATOM	11264	C	HIS	682	89.775	36.344	26.175	1.00	21.71	B	C
ATOM	11265	O	HIS	682	89.412	36.465	27.345	1.00	20.98	B	O
ATOM	11266	N	TYR	683	89.753	37.355	25.307	1.00	19.91	B	N
ATOM	11267	CA	TYR	683	89.232	38.657	25.707	1.00	19.50	B	C
ATOM	11268	CB	TYR	683	89.226	39.646	24.542	1.00	16.55	B	C
ATOM	11269	CG	TYR	683	90.419	40.574	24.472	1.00	16.85	B	C

(Continued)

FIG. 4-231

ATOM	11270	CD1	TYR	683	91.616	40.172	23.877	1.00	16.29	B	C
ATOM	11271	CE1	TYR	683	92.700	41.040	23.786	1.00	16.38	B	C
ATOM	11272	CD2	TYR	683	90.345	41.871	24.980	1.00	16.79	B	C
ATOM	11273	CE2	TYR	683	91.430	42.748	24.893	1.00	14.60	B	C
ATOM	11274	CZ	TYR	683	92.598	42.326	24.295	1.00	15.79	B	C
ATOM	11275	OH	TYR	683	93.663	43.193	24.192	1.00	16.43	B	O
ATOM	11276	C	TYR	683	87.793	38.437	26.150	1.00	21.02	B	C
ATOM	11277	O	TYR	683	87.355	38.955	27.174	1.00	20.95	B	O
ATOM	11278	N	ARG	684	87.071	37.644	25.367	1.00	22.94	B	N
ATOM	11279	CA	ARG	684	85.667	37.349	25.634	1.00	24.36	B	C
ATOM	11280	CB	ARG	684	84.992	36.871	24.344	1.00	24.11	B	C
ATOM	11281	CG	ARG	684	84.996	37.908	23.234	1.00	25.07	B	C
ATOM	11282	CD	ARG	684	84.197	39.132	23.639	1.00	25.30	B	C
ATOM	11283	NE	ARG	684	84.453	40.275	22.767	1.00	27.33	B	N
ATOM	11284	CZ	ARG	684	84.126	40.344	21.480	1.00	27.26	B	C
ATOM	11285	NH1	ARG	684	83.518	39.327	20.880	1.00	27.78	B	N
ATOM	11286	NH2	ARG	684	84.409	41.443	20.794	1.00	26.25	B	N
ATOM	11287	C	ARG	684	85.401	36.340	26.745	1.00	24.46	B	C
ATOM	11288	O	ARG	684	84.275	36.239	27.231	1.00	26.21	B	O
ATOM	11289	N	ASN	685	86.421	35.591	27.148	1.00	24.53	B	N
ATOM	11290	CA	ASN	685	86.243	34.593	28.201	1.00	23.44	B	C
ATOM	11291	CB	ASN	685	86.959	33.294	27.823	1.00	26.13	B	C
ATOM	11292	CG	ASN	685	86.132	32.430	26.904	1.00	33.00	B	C
ATOM	11293	OD1	ASN	685	85.076	31.924	27.296	1.00	35.72	B	O
ATOM	11294	ND2	ASN	685	86.594	32.260	25.667	1.00	36.03	B	N
ATOM	11295	C	ASN	685	86.716	35.043	29.575	1.00	20.60	B	C
ATOM	11296	O	ASN	685	86.472	34.361	30.566	1.00	20.98	B	O
ATOM	11297	N	SER	686	87.382	36.186	29.644	1.00	16.28	B	N
ATOM	11298	CA	SER	686	87.887	36.666	30.918	1.00	16.33	B	C
ATOM	11299	CB	SER	686	89.360	37.063	30.773	1.00	17.18	B	C
ATOM	11300	OG	SER	686	89.530	38.050	29.768	1.00	17.94	B	O
ATOM	11301	C	SER	686	87.089	37.837	31.486	1.00	15.71	B	C
ATOM	11302	O	SER	686	87.625	38.667	32.221	1.00	13.91	B	O
ATOM	11303	N	THR	687	85.807	37.905	31.155	1.00	14.37	B	N
ATOM	11304	CA	THR	687	84.989	38.992	31.655	1.00	15.19	B	C
ATOM	11305	CB	THR	687	83.899	39.401	30.639	1.00	16.80	B	C
ATOM	11306	OG1	THR	687	82.915	38.362	30.537	1.00	18.14	B	O
ATOM	11307	CG2	THR	687	84.519	39.657	29.265	1.00	16.92	B	C
ATOM	11308	C	THR	687	84.309	38.605	32.957	1.00	14.86	B	C
ATOM	11309	O	THR	687	84.153	37.425	33.264	1.00	13.79	B	O
ATOM	11310	N	VAL	688	83.910	39.616	33.717	1.00	14.71	B	N
ATOM	11311	CA	VAL	688	83.224	39.411	34.977	1.00	14.27	B	C
ATOM	11312	CB	VAL	688	83.239	40.691	35.824	1.00	15.67	B	C
ATOM	11313	CG1	VAL	688	82.476	40.464	37.130	1.00	15.43	B	C
ATOM	11314	CG2	VAL	688	84.687	41.115	36.100	1.00	18.49	B	C
ATOM	11315	C	VAL	688	81.777	39.048	34.687	1.00	14.74	B	C
ATOM	11316	O	VAL	688	81.196	38.188	35.350	1.00	15.40	B	O
ATOM	11317	N	MET	689	81.209	39.710	33.682	1.00	13.94	B	N
ATOM	11318	CA	MET	689	79.826	39.496	33.283	1.00	14.18	B	C

(Continued)

FIG. 4-232

ATOM	11319	CB	MET	689	79.519	40.287	32.010	1.00	14.10	B	C
ATOM	11320	CG	MET	689	79.359	41.793	32.217	1.00	18.18	B	C
ATOM	11321	SD	MET	689	80.817	42.684	32.849	1.00	21.67	B	S
ATOM	11322	CE	MET	689	81.693	43.067	31.308	1.00	19.11	B	C
ATOM	11323	C	MET	689	79.429	38.040	33.080	1.00	13.66	B	C
ATOM	11324	O	MET	689	78.398	37.597	33.586	1.00	14.01	B	O
ATOM	11325	N	SER	690	80.246	37.290	32.356	1.00	14.32	B	N
ATOM	11326	CA	SER	690	79.939	35.887	32.087	1.00	16.68	B	C
ATOM	11327	CB	SER	690	81.018	35.259	31.199	1.00	18.28	B	C
ATOM	11328	OG	SER	690	82.225	35.062	31.923	1.00	23.11	B	O
ATOM	11329	C	SER	690	79.771	35.019	33.328	1.00	15.55	B	C
ATOM	11330	O	SER	690	79.212	33.927	33.234	1.00	16.21	B	O
ATOM	11331	N	ARG	691	80.238	35.502	34.478	1.00	14.35	B	N
ATOM	11332	CA	ARG	691	80.155	34.741	35.727	1.00	15.38	B	C
ATOM	11333	CB	ARG	691	81.491	34.821	36.478	1.00	16.76	B	C
ATOM	11334	CG	ARG	691	82.697	34.414	35.652	1.00	19.96	B	C
ATOM	11335	CD	ARG	691	83.972	34.339	36.483	1.00	21.36	B	C
ATOM	11336	NE	ARG	691	85.061	33.725	35.726	1.00	23.56	B	N
ATOM	11337	CZ	ARG	691	86.196	33.274	36.256	1.00	26.24	B	C
ATOM	11338	NH1	ARG	691	86.418	33.358	37.567	1.00	23.55	B	N
ATOM	11339	NH2	ARG	691	87.114	32.728	35.468	1.00	26.33	B	N
ATOM	11340	C	ARG	691	79.049	35.187	36.679	1.00	15.48	B	C
ATOM	11341	O	ARG	691	78.986	34.713	37.817	1.00	14.38	B	O
ATOM	11342	N	ALA	692	78.178	36.081	36.220	1.00	14.78	B	N
ATOM	11343	CA	ALA	692	77.111	36.618	37.064	1.00	16.42	B	C
ATOM	11344	CB	ALA	692	76.105	37.383	36.198	1.00	16.75	B	C
ATOM	11345	C	ALA	692	76.375	35.624	37.977	1.00	17.17	B	C
ATOM	11346	O	ALA	692	76.331	35.814	39.191	1.00	16.75	B	O
ATOM	11347	N	GLU	693	75.803	34.571	37.404	1.00	19.44	B	N
ATOM	11348	CA	GLU	693	75.062	33.589	38.191	1.00	22.16	B	C
ATOM	11349	CB	GLU	693	74.570	32.443	37.299	1.00	26.71	B	C
ATOM	11350	CG	GLU	693	73.251	32.745	36.598	1.00	33.79	B	C
ATOM	11351	CD	GLU	693	73.017	31.873	35.379	1.00	38.47	B	C
ATOM	11352	OE1	GLU	693	72.984	30.632	35.531	1.00	40.41	B	O
ATOM	11353	OE2	GLU	693	72.870	32.433	34.266	1.00	41.15	B	O
ATOM	11354	C	GLU	693	75.827	33.022	39.369	1.00	22.08	B	C
ATOM	11355	O	GLU	693	75.244	32.761	40.418	1.00	24.44	B	O
ATOM	11356	N	ASN	694	77.127	32.824	39.215	1.00	21.66	B	N
ATOM	11357	CA	ASN	694	77.907	32.282	40.320	1.00	22.61	B	C
ATOM	11358	CB	ASN	694	79.324	31.924	39.861	1.00	20.93	B	C
ATOM	11359	CG	ASN	694	79.359	30.654	39.048	1.00	19.32	B	C
ATOM	11360	OD1	ASN	694	80.284	30.420	38.278	1.00	19.68	B	O
ATOM	11361	ND2	ASN	694	78.348	29.818	39.224	1.00	18.34	B	N
ATOM	11362	C	ASN	694	77.975	33.234	41.500	1.00	22.99	B	C
ATOM	11363	O	ASN	694	78.650	32.946	42.479	1.00	25.59	B	O
ATOM	11364	N	PHE	695	77.283	34.366	41.419	1.00	22.83	B	N
ATOM	11365	CA	PHE	695	77.299	35.316	42.531	1.00	23.74	B	C
ATOM	11366	CB	PHE	695	77.205	36.772	42.041	1.00	20.88	B	C
ATOM	11367	CG	PHE	695	78.533	37.397	41.695	1.00	19.06	B	C

(Continued)

FIG. 4-233

ATOM	11368	CD1	PHE	695	79.211	37.042	40.533	1.00	19.50	B	C
ATOM	11369	CD2	PHE	695	79.096	38.365	42.523	1.00	19.69	B	C
ATOM	11370	CE1	PHE	695	80.431	37.647	40.200	1.00	18.29	B	C
ATOM	11371	CE2	PHE	695	80.316	38.977	42.199	1.00	18.53	B	C
ATOM	11372	CZ	PHE	695	80.982	38.615	41.033	1.00	17.35	B	C
ATOM	11373	C	PHE	695	76.146	35.052	43.483	1.00	24.37	B	C
ATOM	11374	O	PHE	695	76.090	35.636	44.566	1.00	25.67	B	O
ATOM	11375	N	LYS	696	75.230	34.173	43.089	1.00	24.40	B	N
ATOM	11376	CA	LYS	696	74.074	33.880	43.926	1.00	25.82	B	C
ATOM	11377	CB	LYS	696	73.173	32.813	43.280	1.00	27.75	B	C
ATOM	11378	CG	LYS	696	72.076	32.281	44.228	1.00	30.02	B	C
ATOM	11379	CD	LYS	696	70.680	32.287	43.615	1.00	31.63	B	C
ATOM	11380	CE	LYS	696	70.137	33.705	43.421	1.00	35.45	B	C
ATOM	11381	NZ	LYS	696	69.903	34.438	44.705	1.00	35.47	B	N
ATOM	11382	C	LYS	696	74.402	33.459	45.348	1.00	24.85	B	C
ATOM	11383	O	LYS	696	73.583	33.641	46.242	1.00	24.94	B	O
ATOM	11384	N	GLN	697	75.587	32.907	45.577	1.00	25.99	B	N
ATOM	11385	CA	GLN	697	75.920	32.481	46.931	1.00	27.33	B	C
ATOM	11386	CB	GLN	697	76.355	31.010	46.941	1.00	29.90	B	C
ATOM	11387	CG	GLN	697	75.290	30.025	46.444	1.00	30.66	B	C
ATOM	11388	CD	GLN	697	75.565	28.593	46.889	1.00	30.92	B	C
ATOM	11389	OE1	GLN	697	75.381	28.245	48.065	1.00	31.54	B	O
ATOM	11390	NE2	GLN	697	76.019	27.761	45.958	1.00	26.21	B	N
ATOM	11391	C	GLN	697	76.964	33.322	47.662	1.00	26.04	B	C
ATOM	11392	O	GLN	697	77.620	32.833	48.580	1.00	28.31	B	O
ATOM	11393	N	VAL	698	77.125	34.580	47.270	1.00	23.16	B	N
ATOM	11394	CA	VAL	698	78.085	35.445	47.947	1.00	21.23	B	C
ATOM	11395	CB	VAL	698	79.411	35.596	47.156	1.00	20.63	B	C
ATOM	11396	CG1	VAL	698	80.033	34.238	46.901	1.00	17.19	B	C
ATOM	11397	CG2	VAL	698	79.161	36.335	45.853	1.00	18.36	B	C
ATOM	11398	C	VAL	698	77.496	36.829	48.118	1.00	21.50	B	C
ATOM	11399	O	VAL	698	76.571	37.207	47.404	1.00	23.06	B	O
ATOM	11400	N	GLU	699	78.018	37.579	49.078	1.00	21.31	B	N
ATOM	11401	CA	GLU	699	77.563	38.945	49.290	1.00	21.42	B	C
ATOM	11402	CB	GLU	699	77.465	39.246	50.785	1.00	22.73	B	C
ATOM	11403	CG	GLU	699	76.396	38.403	51.461	1.00	26.07	B	C
ATOM	11404	CD	GLU	699	76.547	38.346	52.961	1.00	29.09	B	C
ATOM	11405	OE1	GLU	699	76.343	39.387	53.624	1.00	31.29	B	O
ATOM	11406	OE2	GLU	699	76.876	37.254	53.476	1.00	31.07	B	O
ATOM	11407	C	GLU	699	78.610	39.810	48.593	1.00	21.23	B	C
ATOM	11408	O	GLU	699	79.802	39.751	48.905	1.00	21.45	B	O
ATOM	11409	N	TYR	700	78.148	40.594	47.630	1.00	19.47	B	N
ATOM	11410	CA	TYR	700	79.012	41.428	46.818	1.00	18.26	B	C
ATOM	11411	CB	TYR	700	78.830	41.001	45.368	1.00	18.24	B	C
ATOM	11412	CG	TYR	700	79.678	41.685	44.330	1.00	18.56	B	C
ATOM	11413	CD1	TYR	700	81.071	41.698	44.422	1.00	17.75	B	C
ATOM	11414	CE1	TYR	700	81.856	42.206	43.378	1.00	17.99	B	C
ATOM	11415	CD2	TYR	700	79.088	42.209	43.181	1.00	19.07	B	C
ATOM	11416	CE2	TYR	700	79.852	42.715	42.143	1.00	19.54	B	C

(Continued)

FIG. 4-234

ATOM	11417	CZ	TYR	700	81.231	42.707	42.241	1.00	19.61	B	C
ATOM	11418	OH	TYR	700	81.964	43.170	41.176	1.00	20.17	B	O
ATOM	11419	C	TYR	700	78.697	42.902	46.972	1.00	18.20	B	C
ATOM	11420	O	TYR	700	77.534	43.288	47.006	1.00	19.67	B	O
ATOM	11421	N	LEU	701	79.748	43.714	47.078	1.00	16.71	B	N
ATOM	11422	CA	LEU	701	79.628	45.157	47.198	1.00	15.24	B	C
ATOM	11423	CB	LEU	701	80.102	45.624	48.573	1.00	14.82	B	C
ATOM	11424	CG	LEU	701	80.195	47.141	48.768	1.00	15.42	B	C
ATOM	11425	CD1	LEU	701	78.926	47.810	48.280	1.00	16.37	B	C
ATOM	11426	CD2	LEU	701	80.449	47.456	50.233	1.00	13.32	B	C
ATOM	11427	C	LEU	701	80.491	45.770	46.095	1.00	16.15	B	C
ATOM	11428	O	LEU	701	81.714	45.617	46.082	1.00	16.12	B	O
ATOM	11429	N	LEU	702	79.829	46.450	45.167	1.00	14.91	B	N
ATOM	11430	CA	LEU	702	80.467	47.073	44.019	1.00	13.94	B	C
ATOM	11431	CB	LEU	702	79.730	46.627	42.753	1.00	15.12	B	C
ATOM	11432	CG	LEU	702	80.119	47.175	41.383	1.00	15.68	B	C
ATOM	11433	CD1	LEU	702	81.555	46.814	41.050	1.00	14.64	B	C
ATOM	11434	CD2	LEU	702	79.173	46.593	40.354	1.00	16.45	B	C
ATOM	11435	C	LEU	702	80.419	48.590	44.169	1.00	14.21	B	C
ATOM	11436	O	LEU	702	79.346	49.166	44.314	1.00	14.96	B	O
ATOM	11437	N	ILE	703	81.591	49.220	44.132	1.00	13.90	B	N
ATOM	11438	CA	ILE	703	81.737	50.662	44.294	1.00	13.91	B	C
ATOM	11439	CB	ILE	703	82.543	50.967	45.578	1.00	13.87	B	C
ATOM	11440	CG2	ILE	703	82.693	52.491	45.775	1.00	15.37	B	C
ATOM	11441	CG1	ILE	703	81.869	50.308	46.782	1.00	12.11	B	C
ATOM	11442	CD1	ILE	703	82.714	50.328	48.047	1.00	7.95	B	C
ATOM	11443	C	ILE	703	82.495	51.251	43.101	1.00	15.43	B	C
ATOM	11444	O	ILE	703	83.379	50.600	42.548	1.00	17.12	B	O
ATOM	11445	N	HIS	704	82.175	52.484	42.714	1.00	14.44	B	N
ATOM	11446	CA	HIS	704	82.866	53.098	41.579	1.00	14.11	B	C
ATOM	11447	CB	HIS	704	82.483	52.356	40.288	1.00	12.85	B	C
ATOM	11448	CG	HIS	704	83.539	52.386	39.224	1.00	13.44	B	C
ATOM	11449	CD2	HIS	704	84.363	53.377	38.806	1.00	12.54	B	C
ATOM	11450	ND1	HIS	704	83.827	51.293	38.435	1.00	12.00	B	N
ATOM	11451	CE1	HIS	704	84.782	51.607	37.578	1.00	10.09	B	C
ATOM	11452	NE2	HIS	704	85.125	52.865	37.782	1.00	12.68	B	N
ATOM	11453	C	HIS	704	82.533	54.584	41.457	1.00	13.37	B	C
ATOM	11454	O	HIS	704	81.420	55.007	41.770	1.00	15.67	B	O
ATOM	11455	N	GLY	705	83.513	55.372	41.027	1.00	10.99	B	N
ATOM	11456	CA	GLY	705	83.308	56.798	40.860	1.00	10.39	B	C
ATOM	11457	C	GLY	705	82.807	57.082	39.457	1.00	10.13	B	C
ATOM	11458	O	GLY	705	83.326	56.536	38.483	1.00	11.85	B	O
ATOM	11459	N	THR	706	81.805	57.942	39.347	1.00	10.36	B	N
ATOM	11460	CA	THR	706	81.215	58.272	38.054	1.00	9.96	B	C
ATOM	11461	CB	THR	706	79.935	59.072	38.232	1.00	6.56	B	C
ATOM	11462	OG1	THR	706	80.251	60.367	38.739	1.00	8.64	B	O
ATOM	11463	CG2	THR	706	79.025	58.372	39.215	1.00	8.26	B	C
ATOM	11464	C	THR	706	82.145	59.052	37.147	1.00	11.88	B	C
ATOM	11465	O	THR	706	81.994	59.018	35.927	1.00	13.83	B	O

(Continued)

FIG. 4-235

ATOM	11466	N	ALA	707	83.114	59.741	37.739	1.00	13.21	B	N
ATOM	11467	CA	ALA	707	84.075	60.522	36.969	1.00	14.57	B	C
ATOM	11468	CB	ALA	707	84.277	61.881	37.626	1.00	17.64	B	C
ATOM	11469	C	ALA	707	85.427	59.823	36.802	1.00	13.77	B	C
ATOM	11470	O	ALA	707	86.445	60.484	36.639	1.00	14.15	B	O
ATOM	11471	N	ASP	708	85.435	58.494	36.839	1.00	13.35	B	N
ATOM	11472	CA	ASP	708	86.667	57.721	36.685	1.00	12.65	B	C
ATOM	11473	CB	ASP	708	86.439	56.285	37.188	1.00	12.24	B	C
ATOM	11474	CG	ASP	708	87.737	55.536	37.453	1.00	10.05	B	C
ATOM	11475	OD1	ASP	708	88.738	55.775	36.749	1.00	11.19	B	O
ATOM	11476	OD2	ASP	708	87.751	54.686	38.362	1.00	9.31	B	O
ATOM	11477	C	ASP	708	87.091	57.696	35.202	1.00	13.18	B	C
ATOM	11478	O	ASP	708	86.475	57.023	34.368	1.00	13.78	B	O
ATOM	11479	N	ASP	709	88.156	58.423	34.891	1.00	12.80	B	N
ATOM	11480	CA	ASP	709	88.679	58.520	33.534	1.00	12.65	B	C
ATOM	11481	CB	ASP	709	89.442	59.825	33.397	1.00	11.74	B	C
ATOM	11482	CG	ASP	709	90.612	59.912	34.366	1.00	9.63	B	C
ATOM	11483	OD1	ASP	709	91.704	59.385	34.058	1.00	2.39	B	O
ATOM	11484	OD2	ASP	709	90.419	60.499	35.451	1.00	11.84	B	O
ATOM	11485	C	ASP	709	89.605	57.366	33.167	1.00	14.57	B	C
ATOM	11486	O	ASP	709	89.896	57.136	31.987	1.00	16.47	B	O
ATOM	11487	N	ASN	710	90.076	56.652	34.182	1.00	13.58	B	N
ATOM	11488	CA	ASN	710	90.981	55.524	33.990	1.00	13.56	B	C
ATOM	11489	CB	ASN	710	91.841	55.385	35.243	1.00	13.26	B	C
ATOM	11490	CG	ASN	710	92.987	54.440	35.059	1.00	12.07	B	C
ATOM	11491	OD1	ASN	710	93.951	54.478	35.821	1.00	16.69	B	O
ATOM	11492	ND2	ASN	710	92.898	53.578	34.058	1.00	8.28	B	N
ATOM	11493	C	ASN	710	90.177	54.236	33.724	1.00	14.26	B	C
ATOM	11494	O	ASN	710	90.142	53.737	32.598	1.00	14.29	B	O
ATOM	11495	N	VAL	711	89.560	53.692	34.773	1.00	13.24	B	N
ATOM	11496	CA	VAL	711	88.715	52.511	34.652	1.00	12.56	B	C
ATOM	11497	CB	VAL	711	88.835	51.585	35.868	1.00	11.72	B	C
ATOM	11498	CG1	VAL	711	88.048	50.311	35.624	1.00	7.36	B	C
ATOM	11499	CG2	VAL	711	90.287	51.274	36.141	1.00	13.94	B	C
ATOM	11500	C	VAL	711	87.315	53.119	34.645	1.00	14.01	B	C
ATOM	11501	O	VAL	711	86.768	53.471	35.694	1.00	13.52	B	O
ATOM	11502	N	HIS	712	86.746	53.249	33.456	1.00	13.66	B	N
ATOM	11503	CA	HIS	712	85.440	53.869	33.290	1.00	13.44	B	C
ATOM	11504	CB	HIS	712	85.132	53.956	31.794	1.00	12.94	B	C
ATOM	11505	CG	HIS	712	86.219	54.613	31.001	1.00	14.38	B	C
ATOM	11506	CD2	HIS	712	87.137	55.549	31.352	1.00	15.50	B	C
ATOM	11507	ND1	HIS	712	86.477	54.299	29.684	1.00	15.76	B	N
ATOM	11508	CE1	HIS	712	87.510	55.009	29.258	1.00	17.42	B	C
ATOM	11509	NE2	HIS	712	87.928	55.775	30.251	1.00	16.57	B	N
ATOM	11510	C	HIS	712	84.293	53.205	34.048	1.00	13.09	B	C
ATOM	11511	O	HIS	712	84.208	51.983	34.148	1.00	13.25	B	O
ATOM	11512	N	PHE	713	83.420	54.041	34.594	1.00	13.27	B	N
ATOM	11513	CA	PHE	713	82.253	53.586	35.335	1.00	15.36	B	C
ATOM	11514	CB	PHE	713	81.288	54.759	35.530	1.00	15.17	B	C

(Continued)

FIG. 4-236

ATOM	11515	CG	PHE	713	80.156	54.464	36.461	1.00	16.61	B	C
ATOM	11516	CD1	PHE	713	80.346	54.508	37.841	1.00	14.51	B	C
ATOM	11517	CD2	PHE	713	78.901	54.111	35.962	1.00	15.42	B	C
ATOM	11518	CE1	PHE	713	79.304	54.204	38.710	1.00	14.71	B	C
ATOM	11519	CE2	PHE	713	77.848	53.803	36.829	1.00	15.24	B	C
ATOM	11520	CZ	PHE	713	78.051	53.849	38.204	1.00	13.41	B	C
ATOM	11521	C	PHE	713	81.586	52.486	34.499	1.00	16.62	B	C
ATOM	11522	O	PHE	713	81.015	51.527	35.031	1.00	16.48	B	O
ATOM	11523	N	GLN	714	81.673	52.649	33.181	1.00	15.73	B	N
ATOM	11524	CA	GLN	714	81.121	51.699	32.228	1.00	16.08	B	C
ATOM	11525	CB	GLN	714	81.753	51.923	30.857	1.00	14.90	B	C
ATOM	11526	CG	GLN	714	81.699	50.703	29.946	1.00	16.13	B	C
ATOM	11527	CD	GLN	714	82.661	50.811	28.770	1.00	15.37	B	C
ATOM	11528	OE1	GLN	714	83.821	51.167	28.943	1.00	15.11	B	O
ATOM	11529	NE2	GLN	714	82.183	50.493	27.577	1.00	15.35	B	N
ATOM	11530	C	GLN	714	81.372	50.256	32.650	1.00	16.29	B	C
ATOM	11531	O	GLN	714	80.512	49.389	32.487	1.00	17.82	B	O
ATOM	11532	N	GLN	715	82.554	49.997	33.192	1.00	14.60	B	N
ATOM	11533	CA	GLN	715	82.900	48.646	33.593	1.00	14.55	B	C
ATOM	11534	CB	GLN	715	84.395	48.581	33.926	1.00	16.22	B	C
ATOM	11535	CG	GLN	715	85.270	49.086	32.767	1.00	16.01	B	C
ATOM	11536	CD	GLN	715	86.507	48.247	32.537	1.00	14.28	B	C
ATOM	11537	OE1	GLN	715	86.470	47.029	32.674	1.00	17.54	B	O
ATOM	11538	NE2	GLN	715	87.601	48.889	32.155	1.00	12.78	B	N
ATOM	11539	C	GLN	715	82.031	48.134	34.746	1.00	14.99	B	C
ATOM	11540	O	GLN	715	81.616	46.967	34.749	1.00	13.70	B	O
ATOM	11541	N	SER	716	81.742	49.002	35.714	1.00	12.14	B	N
ATOM	11542	CA	SER	716	80.893	48.602	36.829	1.00	11.18	B	C
ATOM	11543	CB	SER	716	81.057	49.544	38.028	1.00	11.19	B	C
ATOM	11544	OG	SER	716	82.278	49.295	38.700	1.00	13.48	B	O
ATOM	11545	C	SER	716	79.432	48.570	36.394	1.00	9.18	B	C
ATOM	11546	O	SER	716	78.682	47.692	36.814	1.00	5.81	B	O
ATOM	11547	N	ALA	717	79.026	49.517	35.552	1.00	8.69	B	N
ATOM	11548	CA	ALA	717	77.639	49.537	35.083	1.00	10.91	B	C
ATOM	11549	CB	ALA	717	77.400	50.708	34.143	1.00	10.07	B	C
ATOM	11550	C	ALA	717	77.304	48.219	34.382	1.00	10.72	B	C
ATOM	11551	O	ALA	717	76.212	47.696	34.539	1.00	14.08	B	O
ATOM	11552	N	GLN	718	78.252	47.682	33.623	1.00	10.89	B	N
ATOM	11553	CA	GLN	718	78.052	46.417	32.928	1.00	10.32	B	C
ATOM	11554	CB	GLN	718	79.137	46.224	31.858	1.00	8.83	B	C
ATOM	11555	CG	GLN	718	79.074	47.232	30.722	1.00	6.53	B	C
ATOM	11556	CD	GLN	718	78.002	46.900	29.691	1.00	8.70	B	C
ATOM	11557	OE1	GLN	718	76.970	46.319	30.012	1.00	13.43	B	O
ATOM	11558	NE2	GLN	718	78.243	47.278	28.449	1.00	11.12	B	N
ATOM	11559	C	GLN	718	78.056	45.235	33.908	1.00	10.68	B	C
ATOM	11560	O	GLN	718	77.357	44.248	33.695	1.00	13.48	B	O
ATOM	11561	N	ILE	719	78.834	45.320	34.981	1.00	12.24	B	N
ATOM	11562	CA	ILE	719	78.851	44.226	35.953	1.00	12.41	B	C
ATOM	11563	CB	ILE	719	79.892	44.434	37.079	1.00	12.88	B	C

(Continued)

FIG. 4-237

ATOM	11564	CG2	ILE	719	79.550	43.532	38.266	1.00	9.78	B	C
ATOM	11565	CG1	ILE	719	81.302	44.131	36.560	1.00	13.61	B	C
ATOM	11566	CD1	ILE	719	82.383	44.146	37.643	1.00	12.97	B	C
ATOM	11567	C	ILE	719	77.494	44.134	36.621	1.00	12.95	B	C
ATOM	11568	O	ILE	719	76.932	43.049	36.757	1.00	13.41	B	O
ATOM	11569	N	SER	720	76.979	45.286	37.043	1.00	12.96	B	N
ATOM	11570	CA	SER	720	75.694	45.345	37.716	1.00	13.07	B	C
ATOM	11571	CB	SER	720	75.418	46.771	38.211	1.00	12.56	B	C
ATOM	11572	OG	SER	720	75.435	47.716	37.147	1.00	15.69	B	O
ATOM	11573	C	SER	720	74.558	44.865	36.814	1.00	14.11	B	C
ATOM	11574	O	SER	720	73.712	44.073	37.238	1.00	13.45	B	O
ATOM	11575	N	LYS	721	74.536	45.329	35.569	1.00	12.91	B	N
ATOM	11576	CA	LYS	721	73.474	44.919	34.664	1.00	14.31	B	C
ATOM	11577	CB	LYS	721	73.647	45.596	33.303	1.00	14.17	B	C
ATOM	11578	CG	LYS	721	72.613	45.188	32.264	1.00	10.06	B	C
ATOM	11579	CD	LYS	721	72.241	46.368	31.378	1.00	10.77	B	C
ATOM	11580	CE	LYS	721	73.427	46.932	30.611	1.00	9.97	B	C
ATOM	11581	NZ	LYS	721	73.939	45.970	29.595	1.00	11.67	B	N
ATOM	11582	C	LYS	721	73.431	43.396	34.504	1.00	15.75	B	C
ATOM	11583	O	LYS	721	72.349	42.803	34.403	1.00	14.39	B	O
ATOM	11584	N	ALA	722	74.605	42.766	34.501	1.00	14.45	B	N
ATOM	11585	CA	ALA	722	74.684	41.320	34.353	1.00	13.03	B	C
ATOM	11586	CB	ALA	722	76.137	40.889	34.146	1.00	11.46	B	C
ATOM	11587	C	ALA	722	74.083	40.607	35.564	1.00	14.14	B	C
ATOM	11588	O	ALA	722	73.369	39.606	35.417	1.00	14.70	B	O
ATOM	11589	N	LEU	723	74.358	41.124	36.758	1.00	13.91	B	N
ATOM	11590	CA	LEU	723	73.832	40.520	37.974	1.00	15.06	B	C
ATOM	11591	CB	LEU	723	74.442	41.184	39.204	1.00	16.63	B	C
ATOM	11592	CG	LEU	723	75.957	40.999	39.306	1.00	16.43	B	C
ATOM	11593	CD1	LEU	723	76.504	41.863	40.415	1.00	18.97	B	C
ATOM	11594	CD2	LEU	723	76.280	39.535	39.546	1.00	15.22	B	C
ATOM	11595	C	LEU	723	72.323	40.668	37.980	1.00	16.46	B	C
ATOM	11596	O	LEU	723	71.586	39.731	38.310	1.00	18.39	B	O
ATOM	11597	N	VAL	724	71.858	41.849	37.604	1.00	16.97	B	N
ATOM	11598	CA	VAL	724	70.429	42.079	37.533	1.00	17.76	B	C
ATOM	11599	CB	VAL	724	70.126	43.526	37.084	1.00	17.79	B	C
ATOM	11600	CG1	VAL	724	68.660	43.678	36.728	1.00	18.59	B	C
ATOM	11601	CG2	VAL	724	70.479	44.487	38.213	1.00	19.61	B	C
ATOM	11602	C	VAL	724	69.844	41.079	36.532	1.00	18.06	B	C
ATOM	11603	O	VAL	724	68.824	40.441	36.800	1.00	16.03	B	O
ATOM	11604	N	ASP	725	70.509	40.920	35.391	1.00	19.41	B	N
ATOM	11605	CA	ASP	725	70.015	39.999	34.379	1.00	21.58	B	C
ATOM	11606	CB	ASP	725	70.965	39.930	33.191	1.00	23.71	B	C
ATOM	11607	CG	ASP	725	70.957	41.197	32.372	1.00	27.35	B	C
ATOM	11608	OD1	ASP	725	69.919	41.895	32.368	1.00	27.29	B	O
ATOM	11609	OD2	ASP	725	71.983	41.486	31.717	1.00	31.72	B	O
ATOM	11610	C	ASP	725	69.748	38.591	34.893	1.00	22.63	B	C
ATOM	11611	O	ASP	725	68.763	37.974	34.474	1.00	24.48	B	O
ATOM	11612	N	VAL	726	70.607	38.075	35.781	1.00	20.53	B	N

(Continued)

FIG. 4-238

ATOM	11613	CA	VAL	726	70.409	36.726	36.329	1.00	17.93	B	C
ATOM	11614	CB	VAL	726	71.727	35.920	36.392	1.00	19.28	B	C
ATOM	11615	CG1	VAL	726	72.246	35.672	34.994	1.00	19.33	B	C
ATOM	11616	CG2	VAL	726	72.763	36.660	37.238	1.00	19.80	B	C
ATOM	11617	C	VAL	726	69.789	36.741	37.723	1.00	17.35	B	C
ATOM	11618	O	VAL	726	69.858	35.756	38.463	1.00	16.63	B	O
ATOM	11619	N	GLY	727	69.198	37.875	38.081	1.00	17.14	B	N
ATOM	11620	CA	GLY	727	68.548	38.012	39.370	1.00	15.42	B	C
ATOM	11621	C	GLY	727	69.387	37.856	40.626	1.00	15.90	B	C
ATOM	11622	O	GLY	727	68.961	37.182	41.559	1.00	17.97	B	O
ATOM	11623	N	VAL	728	70.568	38.462	40.675	1.00	15.07	B	N
ATOM	11624	CA	VAL	728	71.389	38.357	41.876	1.00	14.10	B	C
ATOM	11625	CB	VAL	728	72.859	37.972	41.574	1.00	14.97	B	C
ATOM	11626	CG1	VAL	728	73.693	38.145	42.829	1.00	13.51	B	C
ATOM	11627	CG2	VAL	728	72.954	36.514	41.109	1.00	15.40	B	C
ATOM	11628	C	VAL	728	71.396	39.687	42.603	1.00	14.73	B	C
ATOM	11629	O	VAL	728	71.738	40.714	42.025	1.00	14.56	B	O
ATOM	11630	N	ASP	729	71.007	39.672	43.872	1.00	15.13	B	N
ATOM	11631	CA	ASP	729	70.998	40.896	44.646	1.00	15.32	B	C
ATOM	11632	CB	ASP	729	70.146	40.731	45.903	1.00	15.31	B	C
ATOM	11633	CG	ASP	729	70.034	42.019	46.696	1.00	18.11	B	C
ATOM	11634	OD1	ASP	729	69.663	43.055	46.104	1.00	20.57	B	O
ATOM	11635	OD2	ASP	729	70.317	42.011	47.907	1.00	20.06	B	O
ATOM	11636	C	ASP	729	72.441	41.185	45.021	1.00	16.27	B	C
ATOM	11637	O	ASP	729	73.253	40.270	45.117	1.00	17.70	B	O
ATOM	11638	N	PHE	730	72.772	42.454	45.211	1.00	16.74	B	N
ATOM	11639	CA	PHE	730	74.136	42.824	45.579	1.00	16.43	B	C
ATOM	11640	CB	PHE	730	75.061	42.734	44.361	1.00	13.47	B	C
ATOM	11641	CG	PHE	730	74.744	43.728	43.304	1.00	12.81	B	C
ATOM	11642	CD1	PHE	730	75.282	45.006	43.355	1.00	12.64	B	C
ATOM	11643	CD2	PHE	730	73.828	43.423	42.303	1.00	12.46	B	C
ATOM	11644	CE1	PHE	730	74.907	45.966	42.432	1.00	11.61	B	C
ATOM	11645	CE2	PHE	730	73.446	44.377	41.376	1.00	9.11	B	C
ATOM	11646	CZ	PHE	730	73.986	45.653	41.443	1.00	10.39	B	C
ATOM	11647	C	PHE	730	74.112	44.242	46.114	1.00	17.87	B	C
ATOM	11648	O	PHE	730	73.094	44.928	46.014	1.00	19.72	B	O
ATOM	11649	N	GLN	731	75.230	44.673	46.689	1.00	18.41	B	N
ATOM	11650	CA	GLN	731	75.344	46.015	47.246	1.00	17.25	B	C
ATOM	11651	CB	GLN	731	76.089	45.961	48.569	1.00	18.02	B	C
ATOM	11652	CG	GLN	731	75.547	44.948	49.536	1.00	25.59	B	C
ATOM	11653	CD	GLN	731	74.087	45.183	49.854	1.00	29.48	B	C
ATOM	11654	OE1	GLN	731	73.699	46.275	50.281	1.00	31.32	B	O
ATOM	11655	NE2	GLN	731	73.263	44.157	49.647	1.00	32.13	B	N
ATOM	11656	C	GLN	731	76.124	46.889	46.272	1.00	16.69	B	C
ATOM	11657	O	GLN	731	77.060	46.417	45.623	1.00	13.71	B	O
ATOM	11658	N	ALA	732	75.737	48.158	46.172	1.00	15.59	B	N
ATOM	11659	CA	ALA	732	76.425	49.084	45.284	1.00	15.79	B	C
ATOM	11660	CB	ALA	732	75.718	49.147	43.946	1.00	15.47	B	C
ATOM	11661	C	ALA	732	76.540	50.486	45.867	1.00	17.21	B	C

(Continued)

FIG. 4-239

ATOM	11662	O	ALA	732	75.769	50.897	46.734	1.00	17.93	B	O
ATOM	11663	N	MET	733	77.528	51.220	45.382	1.00	17.27	B	N
ATOM	11664	CA	MET	733	77.737	52.587	45.812	1.00	17.39	B	C
ATOM	11665	CB	MET	733	78.500	52.628	47.136	1.00	18.98	B	C
ATOM	11666	CG	MET	733	78.775	54.028	47.661	1.00	18.20	B	C
ATOM	11667	SD	MET	733	77.278	54.979	47.988	1.00	21.42	B	S
ATOM	11668	CE	MET	733	76.781	54.324	49.578	1.00	19.12	B	C
ATOM	11669	C	MET	733	78.539	53.268	44.719	1.00	17.47	B	C
ATOM	11670	O	MET	733	79.604	52.783	44.318	1.00	17.30	B	O
ATOM	11671	N	TRP	734	78.007	54.378	44.220	1.00	16.37	B	N
ATOM	11672	CA	TRP	734	78.673	55.147	43.175	1.00	15.48	B	C
ATOM	11673	CB	TRP	734	77.685	55.428	42.033	1.00	14.82	B	C
ATOM	11674	CG	TRP	734	76.691	56.523	42.353	1.00	14.06	B	C
ATOM	11675	CD2	TRP	734	75.299	56.363	42.650	1.00	12.49	B	C
ATOM	11676	CE2	TRP	734	74.785	57.645	42.939	1.00	12.15	B	C
ATOM	11677	CE3	TRP	734	74.437	55.259	42.701	1.00	12.01	B	C
ATOM	11678	CD1	TRP	734	76.953	57.857	42.468	1.00	12.61	B	C
ATOM	11679	NE1	TRP	734	75.817	58.535	42.821	1.00	13.60	B	N
ATOM	11680	CZ2	TRP	734	73.449	57.858	43.276	1.00	11.75	B	C
ATOM	11681	CZ3	TRP	734	73.115	55.466	43.034	1.00	13.39	B	C
ATOM	11682	CH2	TRP	734	72.629	56.762	43.319	1.00	13.13	B	C
ATOM	11683	C	TRP	734	79.111	56.457	43.831	1.00	13.60	B	C
ATOM	11684	O	TRP	734	78.491	56.881	44.788	1.00	14.71	B	O
ATOM	11685	N	TYR	735	80.174	57.090	43.346	1.00	13.31	B	N
ATOM	11686	CA	TYR	735	80.598	58.366	43.926	1.00	12.17	B	C
ATOM	11687	CB	TYR	735	81.990	58.260	44.575	1.00	10.49	B	C
ATOM	11688	CG	TYR	735	81.964	57.577	45.920	1.00	10.18	B	C
ATOM	11689	CD1	TYR	735	81.464	58.232	47.045	1.00	11.23	B	C
ATOM	11690	CE1	TYR	735	81.321	57.567	48.272	1.00	11.72	B	C
ATOM	11691	CD2	TYR	735	82.336	56.241	46.052	1.00	11.30	B	C
ATOM	11692	CE2	TYR	735	82.198	55.567	47.270	1.00	11.75	B	C
ATOM	11693	CZ	TYR	735	81.687	56.235	48.372	1.00	12.02	B	C
ATOM	11694	OH	TYR	735	81.511	55.564	49.563	1.00	13.79	B	O
ATOM	11695	C	TYR	735	80.595	59.430	42.845	1.00	14.20	B	C
ATOM	11696	O	TYR	735	81.391	59.393	41.910	1.00	15.56	B	O
ATOM	11697	N	THR	736	79.669	60.372	42.977	1.00	15.66	B	N
ATOM	11698	CA	THR	736	79.517	61.459	42.026	1.00	14.01	B	C
ATOM	11699	CB	THR	736	78.395	62.401	42.469	1.00	13.01	B	C
ATOM	11700	OG1	THR	736	77.163	61.673	42.534	1.00	13.00	B	O
ATOM	11701	CG2	THR	736	78.256	63.571	41.503	1.00	11.91	B	C
ATOM	11702	C	THR	736	80.789	62.278	41.882	1.00	16.80	B	C
ATOM	11703	O	THR	736	81.357	62.730	42.875	1.00	19.71	B	O
ATOM	11704	N	ASP	737	81.230	62.457	40.640	1.00	16.82	B	N
ATOM	11705	CA	ASP	737	82.407	63.257	40.322	1.00	15.22	B	C
ATOM	11706	CB	ASP	737	82.151	64.728	40.684	1.00	15.24	B	C
ATOM	11707	CG	ASP	737	81.101	65.380	39.785	1.00	17.61	B	C
ATOM	11708	OD1	ASP	737	80.697	64.753	38.779	1.00	16.59	B	O
ATOM	11709	OD2	ASP	737	80.680	66.525	40.078	1.00	19.23	B	O
ATOM	11710	C	ASP	737	83.737	62.811	40.912	1.00	15.17	B	C

(Continued)

FIG. 4-240

ATOM	11711	O	ASP	737	84.716	63.560	40.882	1.00	14.33	B	O
ATOM	11712	N	GLU	738	83.790	61.603	41.453	1.00	14.73	B	N
ATOM	11713	CA	GLU	738	85.054	61.112	41.986	1.00	14.51	B	C
ATOM	11714	CB	GLU	738	84.829	60.208	43.206	1.00	15.23	B	C
ATOM	11715	CG	GLU	738	84.353	60.935	44.448	1.00	16.91	B	C
ATOM	11716	CD	GLU	738	85.355	61.958	44.956	1.00	19.02	B	C
ATOM	11717	OE1	GLU	738	86.513	61.580	45.222	1.00	19.93	B	O
ATOM	11718	OE2	GLU	738	84.985	63.142	45.100	1.00	19.97	B	O
ATOM	11719	C	GLU	738	85.718	60.319	40.867	1.00	13.36	B	C
ATOM	11720	O	GLU	738	85.037	59.763	40.005	1.00	13.24	B	O
ATOM	11721	N	ASP	739	87.042	60.275	40.858	1.00	12.47	B	N
ATOM	11722	CA	ASP	739	87.716	59.522	39.824	1.00	12.05	B	C
ATOM	11723	CB	ASP	739	88.809	60.369	39.166	1.00	12.46	B	C
ATOM	11724	CG	ASP	739	89.952	60.717	40.101	1.00	16.27	B	C
ATOM	11725	OD1	ASP	739	90.706	61.653	39.751	1.00	16.93	B	O
ATOM	11726	OD2	ASP	739	90.116	60.066	41.158	1.00	16.75	B	O
ATOM	11727	C	ASP	739	88.248	58.187	40.351	1.00	13.65	B	C
ATOM	11728	O	ASP	739	87.781	57.686	41.372	1.00	14.63	B	O
ATOM	11729	N	HIS	740	89.217	57.609	39.661	1.00	12.45	B	N
ATOM	11730	CA	HIS	740	89.735	56.311	40.041	1.00	12.91	B	C
ATOM	11731	CB	HIS	740	90.795	55.872	39.035	1.00	12.28	B	C
ATOM	11732	CG	HIS	740	91.112	54.418	39.105	1.00	12.12	B	C
ATOM	11733	CD2	HIS	740	92.292	53.763	39.179	1.00	12.56	B	C
ATOM	11734	ND1	HIS	740	90.133	53.449	39.081	1.00	12.00	B	N
ATOM	11735	CE1	HIS	740	90.697	52.256	39.136	1.00	11.97	B	C
ATOM	11736	NE2	HIS	740	92.006	52.419	39.194	1.00	12.98	B	N
ATOM	11737	C	HIS	740	90.298	56.209	41.447	1.00	14.77	B	C
ATOM	11738	O	HIS	740	90.302	55.133	42.041	1.00	16.10	B	O
ATOM	11739	N	GLY	741	90.775	57.320	41.986	1.00	14.45	B	N
ATOM	11740	CA	GLY	741	91.345	57.271	43.311	1.00	13.32	B	C
ATOM	11741	C	GLY	741	90.381	57.572	44.431	1.00	14.78	B	C
ATOM	11742	O	GLY	741	90.763	57.445	45.590	1.00	16.71	B	O
ATOM	11743	N	ILE	742	89.144	57.946	44.103	1.00	14.08	B	N
ATOM	11744	CA	ILE	742	88.146	58.298	45.111	1.00	14.39	B	C
ATOM	11745	CB	ILE	742	87.309	57.082	45.520	1.00	14.12	B	C
ATOM	11746	CG2	ILE	742	86.121	57.539	46.345	1.00	13.12	B	C
ATOM	11747	CG1	ILE	742	86.830	56.336	44.273	1.00	13.94	B	C
ATOM	11748	CD1	ILE	742	85.833	55.214	44.553	1.00	10.86	B	C
ATOM	11749	C	ILE	742	88.892	58.827	46.335	1.00	15.89	B	C
ATOM	11750	O	ILE	742	88.706	58.350	47.453	1.00	17.67	B	O
ATOM	11751	N	ALA	743	89.737	59.828	46.108	1.00	16.48	B	N
ATOM	11752	CA	ALA	743	90.570	60.381	47.157	1.00	15.34	B	C
ATOM	11753	CB	ALA	743	91.985	60.508	46.651	1.00	16.86	B	C
ATOM	11754	C	ALA	743	90.149	61.689	47.779	1.00	16.53	B	C
ATOM	11755	O	ALA	743	90.809	62.153	48.711	1.00	18.69	B	O
ATOM	11756	N	SER	744	89.088	62.312	47.287	1.00	14.28	B	N
ATOM	11757	CA	SER	744	88.681	63.556	47.908	1.00	14.62	B	C
ATOM	11758	CB	SER	744	87.369	64.059	47.321	1.00	16.50	B	C
ATOM	11759	OG	SER	744	86.314	63.152	47.573	1.00	22.09	B	O

(Continued)

FIG. 4-241

ATOM	11760	C	SER	744	88.515	63.251	49.390	1.00	15.05	B	C
ATOM	11761	O	SER	744	88.136	62.147	49.770	1.00	17.03	B	O
ATOM	11762	N	SER	745	88.822	64.223	50.229	1.00	16.05	B	N
ATOM	11763	CA	SER	745	88.712	64.051	51.666	1.00	15.38	B	C
ATOM	11764	CB	SER	745	88.811	65.410	52.361	1.00	15.23	B	C
ATOM	11765	OG	SER	745	88.357	65.318	53.698	1.00	20.36	B	O
ATOM	11766	C	SER	745	87.427	63.360	52.103	1.00	14.58	B	C
ATOM	11767	O	SER	745	87.467	62.334	52.773	1.00	15.64	B	O
ATOM	11768	N	THR	746	86.287	63.925	51.728	1.00	13.39	B	N
ATOM	11769	CA	THR	746	85.009	63.355	52.121	1.00	12.46	B	C
ATOM	11770	CB	THR	746	83.836	64.299	51.755	1.00	13.02	B	C
ATOM	11771	OG1	THR	746	83.858	64.579	50.347	1.00	12.13	B	O
ATOM	11772	CG2	THR	746	83.929	65.599	52.547	1.00	6.36	B	C
ATOM	11773	C	THR	746	84.748	61.982	51.513	1.00	13.71	B	C
ATOM	11774	O	THR	746	84.382	61.045	52.215	1.00	13.77	B	O
ATOM	11775	N	ALA	747	84.948	61.852	50.211	1.00	15.70	B	N
ATOM	11776	CA	ALA	747	84.698	60.575	49.556	1.00	17.75	B	C
ATOM	11777	CB	ALA	747	84.918	60.698	48.047	1.00	18.85	B	C
ATOM	11778	C	ALA	747	85.579	59.482	50.133	1.00	16.94	B	C
ATOM	11779	O	ALA	747	85.136	58.344	50.314	1.00	17.92	B	O
ATOM	11780	N	HIS	748	86.828	59.829	50.418	1.00	15.98	B	N
ATOM	11781	CA	HIS	748	87.772	58.873	50.987	1.00	15.53	B	C
ATOM	11782	CB	HIS	748	89.130	59.547	51.194	1.00	14.50	B	C
ATOM	11783	CG	HIS	748	90.106	58.721	51.974	1.00	12.65	B	C
ATOM	11784	CD2	HIS	748	90.772	58.979	53.124	1.00	12.46	B	C
ATOM	11785	ND1	HIS	748	90.517	57.472	51.566	1.00	11.91	B	N
ATOM	11786	CE1	HIS	748	91.397	56.998	52.430	1.00	12.20	B	C
ATOM	11787	NE2	HIS	748	91.569	57.893	53.384	1.00	9.44	B	N
ATOM	11788	C	HIS	748	87.259	58.310	52.316	1.00	15.00	B	C
ATOM	11789	O	HIS	748	87.272	57.097	52.533	1.00	14.52	B	O
ATOM	11790	N	GLN	749	86.808	59.196	53.200	1.00	14.63	B	N
ATOM	11791	CA	GLN	749	86.283	58.780	54.496	1.00	15.23	B	C
ATOM	11792	CB	GLN	749	86.045	59.999	55.378	1.00	15.87	B	C
ATOM	11793	CG	GLN	749	87.314	60.722	55.740	1.00	22.62	B	C
ATOM	11794	CD	GLN	749	87.056	61.956	56.564	1.00	25.83	B	C
ATOM	11795	OE1	GLN	749	86.511	61.873	57.664	1.00	29.51	B	O
ATOM	11796	NE2	GLN	749	87.443	63.116	56.039	1.00	27.64	B	N
ATOM	11797	C	GLN	749	84.984	57.999	54.348	1.00	14.70	B	C
ATOM	11798	O	GLN	749	84.749	57.015	55.054	1.00	14.10	B	O
ATOM	11799	N	HIS	750	84.147	58.440	53.415	1.00	13.44	B	N
ATOM	11800	CA	HIS	750	82.865	57.808	53.174	1.00	12.63	B	C
ATOM	11801	CB	HIS	750	82.021	58.685	52.247	1.00	13.59	B	C
ATOM	11802	CG	HIS	750	80.587	58.272	52.176	1.00	12.41	B	C
ATOM	11803	CD2	HIS	750	79.475	58.823	52.713	1.00	13.33	B	C
ATOM	11804	ND1	HIS	750	80.175	57.128	51.530	1.00	12.98	B	N
ATOM	11805	CE1	HIS	750	78.869	56.992	51.673	1.00	14.44	B	C
ATOM	11806	NE2	HIS	750	78.419	58.007	52.386	1.00	13.43	B	N
ATOM	11807	C	HIS	750	82.985	56.404	52.595	1.00	13.84	B	C
ATOM	11808	O	HIS	750	82.265	55.499	53.011	1.00	14.53	B	O

(Continued)

FIG. 4-242

ATOM	11809	N	ILE	751	83.885	56.203	51.638	1.00	13.03	B	N
ATOM	11810	CA	ILE	751	84.013	54.875	51.077	1.00	12.47	B	C
ATOM	11811	CB	ILE	751	84.927	54.838	49.814	1.00	13.01	B	C
ATOM	11812	CG2	ILE	751	86.326	55.361	50.137	1.00	12.55	B	C
ATOM	11813	CG1	ILE	751	84.999	53.395	49.287	1.00	12.09	B	C
ATOM	11814	CD1	ILE	751	85.677	53.240	47.939	1.00	11.16	B	C
ATOM	11815	C	ILE	751	84.546	53.893	52.111	1.00	12.65	B	C
ATOM	11816	O	ILE	751	84.025	52.790	52.241	1.00	12.49	B	O
ATOM	11817	N	TYR	752	85.575	54.284	52.858	1.00	13.74	B	N
ATOM	11818	CA	TYR	752	86.137	53.364	53.850	1.00	14.04	B	C
ATOM	11819	CB	TYR	752	87.486	53.883	54.379	1.00	11.26	B	C
ATOM	11820	CG	TYR	752	88.628	53.468	53.472	1.00	9.86	B	C
ATOM	11821	CD1	TYR	752	89.037	52.132	53.408	1.00	10.53	B	C
ATOM	11822	CE1	TYR	752	90.015	51.712	52.502	1.00	9.48	B	C
ATOM	11823	CD2	TYR	752	89.235	54.383	52.608	1.00	9.66	B	C
ATOM	11824	CE2	TYR	752	90.219	53.974	51.692	1.00	8.36	B	C
ATOM	11825	CZ	TYR	752	90.597	52.639	51.646	1.00	9.94	B	C
ATOM	11826	OH	TYR	752	91.536	52.223	50.739	1.00	10.79	B	O
ATOM	11827	C	TYR	752	85.170	53.067	54.973	1.00	13.42	B	C
ATOM	11828	O	TYR	752	85.176	51.972	55.524	1.00	13.56	B	O
ATOM	11829	N	THR	753	84.323	54.040	55.295	1.00	14.48	B	N
ATOM	11830	CA	THR	753	83.316	53.864	56.330	1.00	14.27	B	C
ATOM	11831	CB	THR	753	82.582	55.187	56.618	1.00	13.68	B	C
ATOM	11832	OG1	THR	753	83.519	56.136	57.130	1.00	17.48	B	O
ATOM	11833	CG2	THR	753	81.459	54.987	57.629	1.00	7.20	B	C
ATOM	11834	C	THR	753	82.301	52.849	55.815	1.00	16.15	B	C
ATOM	11835	O	THR	753	81.958	51.894	56.508	1.00	18.93	B	O
ATOM	11836	N	HIS	754	81.830	53.056	54.589	1.00	15.38	B	N
ATOM	11837	CA	HIS	754	80.840	52.163	53.999	1.00	16.06	B	C
ATOM	11838	CB	HIS	754	80.424	52.666	52.620	1.00	15.26	B	C
ATOM	11839	CG	HIS	754	79.109	52.128	52.162	1.00	16.39	B	C
ATOM	11840	CD2	HIS	754	78.779	51.362	51.095	1.00	15.75	B	C
ATOM	11841	ND1	HIS	754	77.936	52.353	52.850	1.00	17.30	B	N
ATOM	11842	CE1	HIS	754	76.940	51.750	52.228	1.00	15.86	B	C
ATOM	11843	NE2	HIS	754	77.425	51.141	51.161	1.00	17.13	B	N
ATOM	11844	C	HIS	754	81.349	50.731	53.886	1.00	16.28	B	C
ATOM	11845	O	HIS	754	80.639	49.788	54.238	1.00	17.31	B	O
ATOM	11846	N	MET	755	82.571	50.564	53.383	1.00	15.98	B	N
ATOM	11847	CA	MET	755	83.158	49.234	53.250	1.00	16.05	B	C
ATOM	11848	CB	MET	755	84.532	49.300	52.573	1.00	15.41	B	C
ATOM	11849	CG	MET	755	84.491	49.542	51.081	1.00	17.11	B	C
ATOM	11850	SD	MET	755	86.112	49.308	50.322	1.00	18.41	B	S
ATOM	11851	CE	MET	755	86.882	50.855	50.742	1.00	20.74	B	C
ATOM	11852	C	MET	755	83.309	48.582	54.623	1.00	15.38	B	C
ATOM	11853	O	MET	755	83.080	47.390	54.783	1.00	13.30	B	O
ATOM	11854	N	SER	756	83.701	49.371	55.614	1.00	15.36	B	N
ATOM	11855	CA	SER	756	83.854	48.833	56.946	1.00	18.52	B	C
ATOM	11856	CB	SER	756	84.413	49.903	57.878	1.00	18.88	B	C
ATOM	11857	OG	SER	756	85.723	50.257	57.477	1.00	18.74	B	O

(Continued)

FIG. 4-243

ATOM	11858	C	SER	756	82.515	48.282	57.462	1.00	19.14	B	C
ATOM	11859	O	SER	756	82.464	47.158	57.975	1.00	19.94	B	O
ATOM	11860	N	HIS	757	81.435	49.048	57.324	1.00	17.68	B	N
ATOM	11861	CA	HIS	757	80.134	48.549	57.770	1.00	19.20	B	C
ATOM	11862	CB	HIS	757	78.990	49.486	57.371	1.00	18.83	B	C
ATOM	11863	CG	HIS	757	78.983	50.794	58.095	1.00	21.13	B	C
ATOM	11864	CD2	HIS	757	78.697	52.046	57.666	1.00	22.10	B	C
ATOM	11865	ND1	HIS	757	79.230	50.899	59.447	1.00	22.62	B	N
ATOM	11866	CE1	HIS	757	79.096	52.159	59.820	1.00	23.60	B	C
ATOM	11867	NE2	HIS	757	78.772	52.876	58.758	1.00	24.81	B	N
ATOM	11868	C	HIS	757	79.866	47.190	57.120	1.00	17.94	B	C
ATOM	11869	O	HIS	757	79.416	46.251	57.772	1.00	16.58	B	O
ATOM	11870	N	PHE	758	80.158	47.103	55.828	1.00	17.93	B	N
ATOM	11871	CA	PHE	758	79.926	45.888	55.052	1.00	18.80	B	C
ATOM	11872	CB	PHE	758	80.286	46.138	53.586	1.00	15.70	B	C
ATOM	11873	CG	PHE	758	79.952	44.997	52.677	1.00	10.77	B	C
ATOM	11874	CD1	PHE	758	78.646	44.790	52.251	1.00	8.39	B	C
ATOM	11875	CD2	PHE	758	80.941	44.120	52.254	1.00	6.53	B	C
ATOM	11876	CE1	PHE	758	78.334	43.716	51.409	1.00	9.32	B	C
ATOM	11877	CE2	PHE	758	80.638	43.045	51.417	1.00	6.01	B	C
ATOM	11878	CZ	PHE	758	79.340	42.836	50.991	1.00	2.78	B	C
ATOM	11879	C	PHE	758	80.697	44.674	55.560	1.00	20.68	B	C
ATOM	11880	O	PHE	758	80.110	43.631	55.851	1.00	21.00	B	O
ATOM	11881	N	ILE	759	82.014	44.811	55.654	1.00	23.57	B	N
ATOM	11882	CA	ILE	759	82.858	43.722	56.117	1.00	25.05	B	C
ATOM	11883	CB	ILE	759	84.364	44.129	56.069	1.00	25.44	B	C
ATOM	11884	CG2	ILE	759	84.994	44.041	57.437	1.00	28.98	B	C
ATOM	11885	CG1	ILE	759	85.128	43.189	55.142	1.00	26.52	B	C
ATOM	11886	CD1	ILE	759	84.706	43.263	53.704	1.00	26.84	B	C
ATOM	11887	C	ILE	759	82.441	43.318	57.529	1.00	25.34	B	C
ATOM	11888	O	ILE	759	82.420	42.136	57.866	1.00	25.50	B	O
ATOM	11889	N	LYS	760	82.081	44.299	58.346	1.00	26.11	B	N
ATOM	11890	CA	LYS	760	81.671	44.012	59.713	1.00	26.62	B	C
ATOM	11891	CB	LYS	760	81.444	45.300	60.487	1.00	26.43	B	C
ATOM	11892	CG	LYS	760	82.178	45.298	61.792	1.00	29.00	B	C
ATOM	11893	CD	LYS	760	83.666	45.271	61.537	1.00	28.96	B	C
ATOM	11894	CE	LYS	760	84.139	46.665	61.250	1.00	30.01	B	C
ATOM	11895	NZ	LYS	760	83.776	47.523	62.420	1.00	31.29	B	N
ATOM	11896	C	LYS	760	80.406	43.179	59.740	1.00	27.08	B	C
ATOM	11897	O	LYS	760	80.312	42.200	60.473	1.00	28.46	B	O
ATOM	11898	N	GLN	761	79.431	43.581	58.940	1.00	28.08	B	N
ATOM	11899	CA	GLN	761	78.170	42.866	58.844	1.00	29.69	B	C
ATOM	11900	CB	GLN	761	77.213	43.652	57.942	1.00	31.26	B	C
ATOM	11901	CG	GLN	761	76.072	42.855	57.347	1.00	34.99	B	C
ATOM	11902	CD	GLN	761	76.477	42.140	56.072	1.00	37.85	B	C
ATOM	11903	OE1	GLN	761	76.800	42.775	55.062	1.00	37.29	B	O
ATOM	11904	NE2	GLN	761	76.464	40.808	56.112	1.00	39.80	B	N
ATOM	11905	C	GLN	761	78.401	41.456	58.295	1.00	30.00	B	C
ATOM	11906	O	GLN	761	77.791	40.494	58.753	1.00	31.14	B	O

(Continued)

FIG. 4-244

ATOM	11907	N	CYS	762	79.291	41.333	57.320	1.00	29.71	B	N
ATOM	11908	CA	CYS	762	79.588	40.035	56.731	1.00	30.30	B	C
ATOM	11909	C	CYS	762	80.275	39.077	57.712	1.00	30.21	B	C
ATOM	11910	O	CYS	762	80.153	37.860	57.578	1.00	29.67	B	O
ATOM	11911	CB	CYS	762	80.458	40.212	55.474	1.00	30.01	B	C
ATOM	11912	SG	CYS	762	81.198	38.665	54.849	1.00	33.72	B	S
ATOM	11913	N	PHE	763	80.986	39.618	58.698	1.00	30.53	B	N
ATOM	11914	CA	PHE	763	81.694	38.783	59.664	1.00	31.28	B	C
ATOM	11915	CB	PHE	763	83.112	39.310	59.885	1.00	29.29	B	C
ATOM	11916	CG	PHE	763	84.052	39.057	58.736	1.00	27.21	B	C
ATOM	11917	CD1	PHE	763	83.663	38.280	57.650	1.00	26.19	B	C
ATOM	11918	CD2	PHE	763	85.348	39.572	58.762	1.00	26.38	B	C
ATOM	11919	CE1	PHE	763	84.552	38.015	56.605	1.00	27.91	B	C
ATOM	11920	CE2	PHE	763	86.249	39.316	57.727	1.00	27.36	B	C
ATOM	11921	CZ	PHE	763	85.851	38.533	56.643	1.00	27.55	B	C
ATOM	11922	C	PHE	763	80.994	38.666	61.011	1.00	34.52	B	C
ATOM	11923	O	PHE	763	81.473	37.970	61.908	1.00	32.78	B	O
ATOM	11924	N	SER	764	79.862	39.346	61.151	1.00	39.49	B	N
ATOM	11925	CA	SER	764	79.099	39.319	62.393	1.00	43.60	B	C
ATOM	11926	CB	SER	764	77.860	40.199	62.273	1.00	44.56	B	C
ATOM	11927	OG	SER	764	78.218	41.528	61.948	1.00	50.05	B	O
ATOM	11928	C	SER	764	78.668	37.909	62.746	1.00	45.96	B	C
ATOM	11929	O	SER	764	77.885	37.289	62.028	1.00	45.86	B	O
ATOM	11930	N	LEU	765	79.189	37.404	63.856	1.00	49.22	B	N
ATOM	11931	CA	LEU	765	78.845	36.070	64.317	1.00	52.03	B	C
ATOM	11932	CB	LEU	765	79.754	35.678	65.481	1.00	52.53	B	C
ATOM	11933	CG	LEU	765	81.234	35.558	65.115	1.00	52.85	B	C
ATOM	11934	CD1	LEU	765	82.074	35.452	66.376	1.00	53.55	B	C
ATOM	11935	CD2	LEU	765	81.435	34.344	64.214	1.00	52.54	B	C
ATOM	11936	C	LEU	765	77.383	36.069	64.761	1.00	54.34	B	C
ATOM	11937	O	LEU	765	77.019	36.721	65.743	1.00	53.63	B	O
ATOM	11938	N	PRO	766	76.523	35.340	64.031	1.00	56.38	B	N
ATOM	11939	CD	PRO	766	76.833	34.541	62.831	1.00	56.67	B	C
ATOM	11940	CA	PRO	766	75.095	35.263	64.356	1.00	57.95	B	C
ATOM	11941	CB	PRO	766	74.509	34.544	63.141	1.00	58.24	B	C
ATOM	11942	CG	PRO	766	75.626	33.633	62.728	1.00	57.40	B	C
ATOM	11943	C	PRO	766	74.805	34.523	65.664	1.00	59.30	B	C
ATOM	11944	O	PRO	766	73.791	33.789	65.711	1.00	60.29	B	O
ATOM	11945	OXT	PRO	766	75.584	34.704	66.627	1.00	59.84	B	O
TER	11946		PRO	766						B	
ATOM	11947	C1	NAG	901	25.105	38.477	14.927	1.00	45.03	E	C
ATOM	11948	C2	NAG	901	26.266	38.501	13.922	1.00	45.16	E	C
ATOM	11949	N2	NAG	901	27.447	39.002	14.595	1.00	44.20	E	N
ATOM	11950	C7	NAG	901	28.662	38.702	14.153	1.00	43.63	E	C
ATOM	11951	O7	NAG	901	29.050	37.546	13.997	1.00	44.60	E	O
ATOM	11952	C8	NAG	901	29.588	39.864	13.838	1.00	43.83	E	C
ATOM	11953	C3	NAG	901	25.942	39.385	12.713	1.00	46.38	E	C
ATOM	11954	O3	NAG	901	26.953	39.235	11.728	1.00	49.49	E	O
ATOM	11955	C4	NAG	901	24.591	38.987	12.124	1.00	47.76	E	C

(Continued)

FIG. 4-245

ATOM	11956	O4	NAG	901	24.256	39.836	11.036	1.00	49.01	E	O
ATOM	11957	C5	NAG	901	23.545	39.104	13.219	1.00	49.11	E	C
ATOM	11958	O5	NAG	901	23.858	38.173	14.276	1.00	47.99	E	O
ATOM	11959	C6	NAG	901	22.143	38.804	12.731	1.00	50.99	E	C
ATOM	11960	O6	NAG	901	21.706	39.781	11.793	1.00	53.28	E	O
ATOM	11961	C1	NAG	902	34.526	67.450	4.248	1.00	29.71	E	C
ATOM	11962	C2	NAG	902	33.682	66.990	3.051	1.00	31.02	E	C
ATOM	11963	N2	NAG	902	34.077	65.638	2.692	1.00	35.02	E	N
ATOM	11964	C7	NAG	902	33.181	64.660	2.610	1.00	35.78	E	C
ATOM	11965	O7	NAG	902	32.213	64.701	1.852	1.00	37.59	E	O
ATOM	11966	C8	NAG	902	33.392	63.449	3.503	1.00	37.18	E	C
ATOM	11967	C3	NAG	902	33.927	67.915	1.848	1.00	31.67	E	C
ATOM	11968	O3	NAG	902	33.032	67.583	0.794	1.00	34.76	E	O
ATOM	11969	C4	NAG	902	33.753	69.386	2.248	1.00	31.76	E	C
ATOM	11970	O4	NAG	902	34.037	70.238	1.144	1.00	30.03	E	O
ATOM	11971	C5	NAG	902	34.701	69.674	3.412	1.00	30.64	E	C
ATOM	11972	O5	NAG	902	34.332	68.844	4.526	1.00	30.02	E	O
ATOM	11973	C6	NAG	902	34.720	71.114	3.892	1.00	30.81	E	C
ATOM	11974	O6	NAG	902	33.457	71.512	4.409	1.00	34.26	E	O
ATOM	11975	C1	NAG	903	64.239	77.734	14.341	1.00	27.20	E	C
ATOM	11976	C2	NAG	903	63.984	78.203	12.917	1.00	26.96	E	C
ATOM	11977	N2	NAG	903	63.551	77.080	12.116	1.00	25.19	E	N
ATOM	11978	C7	NAG	903	62.349	77.076	11.551	1.00	24.99	E	C
ATOM	11979	O7	NAG	903	62.121	76.492	10.490	1.00	25.88	E	O
ATOM	11980	C8	NAG	903	61.222	77.800	12.272	1.00	23.55	E	C
ATOM	11981	C3	NAG	903	65.253	78.817	12.325	1.00	29.00	E	C
ATOM	11982	O3	NAG	903	64.947	79.400	11.066	1.00	29.62	E	O
ATOM	11983	C4	NAG	903	65.814	79.900	13.248	1.00	30.83	E	C
ATOM	11984	O4	NAG	903	67.092	80.316	12.778	1.00	31.15	E	O
ATOM	11985	C5	NAG	903	65.929	79.389	14.690	1.00	30.71	E	C
ATOM	11986	O5	NAG	903	64.669	78.842	15.133	1.00	30.11	E	O
ATOM	11987	C6	NAG	903	66.276	80.502	15.659	1.00	32.26	E	C
ATOM	11988	O6	NAG	903	65.937	80.144	16.993	1.00	35.52	E	O
ATOM	11989	C1	NAG	904	56.857	73.229	-0.933	1.00	21.65	E	C
ATOM	11990	C2	NAG	904	58.289	73.099	-1.475	1.00	21.59	E	C
ATOM	11991	N2	NAG	904	58.532	71.758	-1.961	1.00	21.40	E	N
ATOM	11992	C7	NAG	904	58.567	71.523	-3.267	1.00	20.76	E	C
ATOM	11993	O7	NAG	904	58.745	72.412	-4.104	1.00	18.55	E	O
ATOM	11994	C8	NAG	904	58.371	70.080	-3.709	1.00	20.74	E	C
ATOM	11995	C3	NAG	904	59.325	73.441	-0.417	1.00	22.32	E	C
ATOM	11996	O3	NAG	904	60.611	73.413	-1.009	1.00	22.81	E	O
ATOM	11997	C4	NAG	904	59.022	74.832	0.129	1.00	22.85	E	C
ATOM	11998	O4	NAG	904	59.986	75.217	1.101	1.00	24.62	E	O
ATOM	11999	C5	NAG	904	57.634	74.781	0.737	1.00	22.86	E	C
ATOM	12000	O5	NAG	904	56.672	74.506	-0.297	1.00	21.95	E	O
ATOM	12001	C6	NAG	904	57.232	76.083	1.385	1.00	24.39	E	C
ATOM	12002	O6	NAG	904	57.196	77.133	0.430	1.00	31.81	E	O
ATOM	12003	C1	NAG	905	49.743	85.075	37.084	1.00	31.93	E	C
ATOM	12004	C2	NAG	905	49.010	86.230	37.756	1.00	33.35	E	C

(Continued)

FIG. 4 - 246

ATOM	12005	N2	NAG	905	47.823	86.586	37.012	1.00	34.30	E	N
ATOM	12006	C7	NAG	905	46.648	86.099	37.395	1.00	35.18	E	C
ATOM	12007	O7	NAG	905	46.362	85.888	38.578	1.00	36.47	E	O
ATOM	12008	C8	NAG	905	45.640	85.786	36.303	1.00	37.15	E	C
ATOM	12009	C3	NAG	905	49.951	87.416	37.924	1.00	33.45	E	C
ATOM	12010	O3	NAG	905	49.256	88.512	38.495	1.00	33.93	E	O
ATOM	12011	C4	NAG	905	51.043	86.945	38.863	1.00	35.37	E	C
ATOM	12012	O4	NAG	905	51.934	88.009	39.193	1.00	35.45	E	O
ATOM	12013	C5	NAG	905	51.794	85.773	38.215	1.00	34.39	E	C
ATOM	12014	O5	NAG	905	50.878	84.684	37.887	1.00	32.56	E	O
ATOM	12015	C6	NAG	905	52.787	85.212	39.214	1.00	36.29	E	C
ATOM	12016	O6	NAG	905	52.150	84.936	40.459	1.00	35.52	E	O
ATOM	12017	C1	NAG	906	128.439	74.792	56.371	1.00	36.45	E	C
ATOM	12018	C2	NAG	906	127.977	75.856	55.375	1.00	37.00	E	C
ATOM	12019	N2	NAG	906	126.880	75.335	54.586	1.00	37.17	E	N
ATOM	12020	C7	NAG	906	125.666	75.871	54.690	1.00	38.41	E	C
ATOM	12021	O7	NAG	906	125.264	76.427	55.714	1.00	38.52	E	O
ATOM	12022	C8	NAG	906	124.760	75.782	53.471	1.00	36.25	E	C
ATOM	12023	C3	NAG	906	129.133	76.265	54.465	1.00	38.66	E	C
ATOM	12024	O3	NAG	906	128.723	77.334	53.625	1.00	39.59	E	O
ATOM	12025	C4	NAG	906	130.331	76.704	55.308	1.00	39.58	E	C
ATOM	12026	O4	NAG	906	131.439	76.975	54.460	1.00	41.48	E	O
ATOM	12027	C5	NAG	906	130.699	75.602	56.312	1.00	40.24	E	C
ATOM	12028	O5	NAG	906	129.556	75.268	57.133	1.00	38.27	E	O
ATOM	12029	C6	NAG	906	131.811	76.032	57.255	1.00	41.89	E	C
ATOM	12030	O6	NAG	906	131.906	75.162	58.378	1.00	46.70	E	O
ATOM	12031	C1	NAG	907	126.770	72.294	25.405	1.00	33.54	E	C
ATOM	12032	C2	NAG	907	127.763	73.454	25.478	1.00	35.73	E	C
ATOM	12033	N2	NAG	907	127.401	74.367	26.540	1.00	37.97	E	N
ATOM	12034	C7	NAG	907	128.139	74.400	27.644	1.00	41.34	E	C
ATOM	12035	O7	NAG	907	128.715	73.403	28.094	1.00	42.96	E	O
ATOM	12036	C8	NAG	907	128.278	75.739	28.352	1.00	42.60	E	C
ATOM	12037	C3	NAG	907	127.776	74.167	24.126	1.00	36.63	E	C
ATOM	12038	O3	NAG	907	128.692	75.253	24.154	1.00	38.28	E	O
ATOM	12039	C4	NAG	907	128.171	73.148	23.047	1.00	35.89	E	C
ATOM	12040	O4	NAG	907	128.191	73.758	21.763	1.00	35.82	E	O
ATOM	12041	C5	NAG	907	127.161	71.995	23.075	1.00	35.12	E	C
ATOM	12042	O5	NAG	907	127.166	71.377	24.380	1.00	32.61	E	O
ATOM	12043	C6	NAG	907	127.444	70.913	22.057	1.00	36.17	E	C
ATOM	12044	O6	NAG	907	128.515	70.083	22.478	1.00	38.44	E	O
ATOM	12045	C1	NAG	908	97.567	64.129	12.586	1.00	33.83	E	C
ATOM	12046	C2	NAG	908	98.226	65.101	11.602	1.00	36.51	E	C
ATOM	12047	N2	NAG	908	98.466	66.365	12.269	1.00	40.33	E	N
ATOM	12048	C7	NAG	908	99.645	66.962	12.148	1.00	43.03	E	C
ATOM	12049	O7	NAG	908	100.703	66.434	12.500	1.00	45.77	E	O
ATOM	12050	C8	NAG	908	99.655	68.349	11.529	1.00	43.86	E	C
ATOM	12051	C3	NAG	908	97.328	65.325	10.380	1.00	37.11	E	C
ATOM	12052	O3	NAG	908	98.013	66.122	9.426	1.00	37.35	E	O
ATOM	12053	C4	NAG	908	96.945	63.975	9.760	1.00	36.97	E	C

(Continued)

FIG. 4-247

ATOM	12054	O4	NAG	908	96.049	64.165	8.668	1.00	36.08	E O
ATOM	12055	C5	NAG	908	96.291	63.106	10.841	1.00	35.43	E C
ATOM	12056	O5	NAG	908	97.215	62.906	11.930	1.00	33.34	E O
ATOM	12057	C6	NAG	908	95.890	61.735	10.341	1.00	36.72	E C
ATOM	12058	O6	NAG	908	95.085	61.057	11.296	1.00	38.75	E O
ATOM	12059	C1	NAG	909	106.501	80.407	11.987	1.00	55.21	E C
ATOM	12060	C2	NAG	909	105.627	81.255	11.048	1.00	55.75	E C
ATOM	12061	N2	NAG	909	105.631	82.658	11.427	1.00	55.80	E N
ATOM	12062	C7	NAG	909	106.748	83.259	11.828	1.00	56.83	E C
ATOM	12063	O7	NAG	909	107.685	83.526	11.066	1.00	55.16	E O
ATOM	12064	C8	NAG	909	106.838	83.620	13.305	1.00	56.25	E C
ATOM	12065	C3	NAG	909	104.195	80.724	11.087	1.00	56.36	E C
ATOM	12066	O3	NAG	909	103.396	81.452	10.166	1.00	58.58	E O
ATOM	12067	C4	NAG	909	104.176	79.229	10.744	1.00	56.19	E C
ATOM	12068	O4	NAG	909	102.855	78.716	10.862	1.00	55.29	E O
ATOM	12069	C5	NAG	909	105.117	78.478	11.692	1.00	56.24	E C
ATOM	12070	O5	NAG	909	106.446	79.028	11.600	1.00	56.65	E O
ATOM	12071	C6	NAG	909	105.230	76.996	11.381	1.00	57.38	E C
ATOM	12072	O6	NAG	909	106.370	76.423	12.010	1.00	55.01	E O
ATOM	12073	C1	NAG	910	105.213	38.428	20.006	1.00	34.33	E C
ATOM	12074	C2	NAG	910	106.113	37.293	19.498	1.00	37.27	E C
ATOM	12075	N2	NAG	910	107.447	37.789	19.211	1.00	40.05	E N
ATOM	12076	C7	NAG	910	108.495	36.984	19.368	1.00	42.24	E C
ATOM	12077	O7	NAG	910	109.013	36.771	20.465	1.00	42.65	E O
ATOM	12078	C8	NAG	910	109.047	36.295	18.126	1.00	42.65	E C
ATOM	12079	C3	NAG	910	105.504	36.650	18.245	1.00	37.60	E C
ATOM	12080	O3	NAG	910	106.296	35.547	17.831	1.00	38.44	E O
ATOM	12081	C4	NAG	910	104.084	36.182	18.551	1.00	36.63	E C
ATOM	12082	O4	NAG	910	103.489	35.616	17.388	1.00	37.52	E O
ATOM	12083	C5	NAG	910	103.274	37.387	19.037	1.00	35.81	E C
ATOM	12084	O5	NAG	910	103.883	37.930	20.229	1.00	34.96	E O
ATOM	12085	C6	NAG	910	101.838	37.042	19.385	1.00	34.79	E C
ATOM	12086	O6	NAG	910	101.781	36.089	20.437	1.00	34.77	E O
TER	12087		NAG	910						E
ATOM	12088	O	HOH	1	53.435	80.704	18.172	1.00	10.60	W O
ATOM	12089	O	HOH	2	57.473	78.703	26.320	1.00	21.03	W O
ATOM	12090	O	HOH	3	65.386	56.077	37.040	1.00	7.09	W O
ATOM	12091	O	HOH	4	56.235	76.520	22.816	1.00	14.76	W O
ATOM	12092	O	HOH	5	58.127	60.758	28.066	1.00	4.57	W O
ATOM	12093	O	HOH	6	40.099	59.877	48.410	1.00	16.00	W O
ATOM	12094	O	HOH	7	29.796	47.323	37.410	1.00	24.76	W O
ATOM	12095	O	HOH	8	38.634	67.195	51.371	1.00	22.65	W O
ATOM	12096	O	HOH	9	41.732	52.103	37.673	1.00	13.34	W O
ATOM	12097	O	HOH	10	79.275	54.159	21.409	1.00	15.53	W O
ATOM	12098	O	HOH	11	65.287	66.160	35.128	1.00	7.29	W O
ATOM	12099	O	HOH	12	79.267	49.364	26.780	1.00	14.00	W O
ATOM	12100	O	HOH	13	67.989	56.792	26.833	1.00	20.21	W O
ATOM	12101	O	HOH	14	68.995	70.138	19.815	1.00	12.98	W O
ATOM	12102	O	HOH	15	59.193	63.441	21.787	1.00	5.68	W O

(Continued)

FIG. 4-248

ATOM	12103	O	HOH	16	49.896	66.700	47.886	1.00	13.21	W	O
ATOM	12104	O	HOH	17	48.544	53.043	50.567	1.00	20.65	W	O
ATOM	12105	O	HOH	18	73.938	69.817	52.424	1.00	34.74	W	O
ATOM	12106	O	HOH	19	36.883	69.650	29.378	1.00	25.18	W	O
ATOM	12107	O	HOH	20	50.912	61.115	48.431	1.00	18.77	W	O
ATOM	12108	O	HOH	21	58.369	85.282	28.107	1.00	27.06	W	O
ATOM	12109	O	HOH	22	62.886	63.930	21.686	1.00	29.16	W	O
ATOM	12110	O	HOH	23	43.777	87.394	23.730	1.00	9.96	W	O
ATOM	12111	O	HOH	24	48.078	67.109	30.405	1.00	21.66	W	O
ATOM	12112	O	HOH	25	36.753	80.303	31.025	1.00	34.33	W	O
ATOM	12113	O	HOH	26	63.225	66.634	22.568	1.00	10.18	W	O
ATOM	12114	O	HOH	27	35.078	54.838	52.427	1.00	29.90	W	O
ATOM	12115	O	HOH	28	57.184	80.961	23.145	1.00	17.51	W	O
ATOM	12116	O	HOH	29	73.677	71.484	27.824	1.00	34.92	W	O
ATOM	12117	O	HOH	30	76.251	57.060	34.794	1.00	28.05	W	O
ATOM	12118	O	HOH	31	72.985	72.092	24.987	1.00	14.46	W	O
ATOM	12119	O	HOH	32	61.839	84.543	25.502	1.00	22.75	W	O
ATOM	12120	O	HOH	33	33.787	63.840	46.551	1.00	12.55	W	O
ATOM	12121	O	HOH	34	47.827	47.441	47.587	1.00	25.33	W	O
ATOM	12122	O	HOH	35	55.562	56.510	44.904	1.00	30.51	W	O
ATOM	12123	O	HOH	36	31.114	59.222	42.224	1.00	13.22	W	O
ATOM	12124	O	HOH	37	82.143	64.199	47.510	1.00	21.69	W	O
ATOM	12125	O	HOH	38	41.587	70.385	33.904	1.00	24.19	W	O
ATOM	12126	O	HOH	39	70.447	47.056	34.998	1.00	24.19	W	O
ATOM	12127	O	HOH	40	23.146	49.571	32.910	1.00	22.85	W	O
ATOM	12128	O	HOH	41	23.427	53.516	39.573	1.00	12.47	W	O
ATOM	12129	O	HOH	42	74.977	48.248	21.021	1.00	24.35	W	O
ATOM	12130	O	HOH	43	81.171	53.457	19.457	1.00	32.23	W	O
ATOM	12131	O	HOH	44	70.982	61.003	21.232	1.00	19.07	W	O
ATOM	12132	O	HOH	45	51.713	50.325	19.619	1.00	36.05	W	O
ATOM	12133	O	HOH	46	75.424	58.001	59.062	1.00	20.53	W	O
ATOM	12134	O	HOH	47	52.251	54.978	15.598	1.00	20.74	W	O
ATOM	12135	O	HOH	48	37.551	51.103	23.882	1.00	16.65	W	O
ATOM	12136	O	HOH	49	31.428	66.281	21.097	1.00	18.82	W	O
ATOM	12137	O	HOH	50	45.546	72.589	-9.525	1.00	19.51	W	O
ATOM	12138	O	HOH	51	71.765	47.337	39.374	1.00	16.49	W	O
ATOM	12139	O	HOH	52	57.328	68.673	61.331	1.00	26.41	W	O
ATOM	12140	O	HOH	53	72.778	48.947	47.621	1.00	17.49	W	O
ATOM	12141	O	HOH	54	30.292	82.021	10.956	1.00	24.56	W	O
ATOM	12142	O	HOH	55	47.165	45.427	40.043	1.00	35.52	W	O
ATOM	12143	O	HOH	56	25.673	60.491	43.209	1.00	10.79	W	O
ATOM	12144	O	HOH	57	71.617	62.843	34.752	1.00	17.19	W	O
ATOM	12145	O	HOH	58	46.059	55.643	2.123	1.00	19.51	W	O
ATOM	12146	O	HOH	59	68.766	45.985	50.017	1.00	22.18	W	O
ATOM	12147	O	HOH	60	52.732	70.566	0.317	1.00	32.17	W	O
ATOM	12148	O	HOH	61	61.782	69.597	25.094	1.00	13.27	W	O
ATOM	12149	O	HOH	62	51.352	79.521	14.538	1.00	17.25	W	O
ATOM	12150	O	HOH	63	48.267	86.907	16.122	1.00	21.54	W	O
ATOM	12151	O	HOH	64	49.536	54.337	14.938	1.00	22.27	W	O

(Continued)

FIG. 4-249

ATOM	12152	O	HOH	65	37.711	84.458	31.782	1.00	38.65	W	O
ATOM	12153	O	HOH	66	41.832	62.441	48.190	1.00	23.50	W	O
ATOM	12154	O	HOH	67	56.514	63.214	39.402	1.00	20.39	W	O
ATOM	12155	O	HOH	68	48.166	60.456	42.122	1.00	37.55	W	O
ATOM	12156	O	HOH	69	52.076	51.584	45.757	1.00	22.02	W	O
ATOM	12157	O	HOH	70	47.607	61.634	15.612	1.00	34.50	W	O
ATOM	12158	O	HOH	71	39.108	76.636	34.882	1.00	24.21	W	O
ATOM	12159	O	HOH	72	62.894	85.163	44.724	1.00	38.05	W	O
ATOM	12160	O	HOH	73	49.937	51.963	48.658	1.00	25.50	W	O
ATOM	12161	O	HOH	74	32.972	63.405	9.645	1.00	31.16	W	O
ATOM	12162	O	HOH	75	76.481	50.940	55.523	1.00	8.02	W	O
ATOM	12163	O	HOH	76	54.751	68.666	-3.038	1.00	19.33	W	O
ATOM	12164	O	HOH	77	69.797	76.851	37.550	1.00	38.44	W	O
ATOM	12165	O	HOH	78	60.195	69.793	56.043	1.00	27.75	W	O
ATOM	12166	O	HOH	79	68.721	77.775	28.423	1.00	14.61	W	O
ATOM	12167	O	HOH	80	76.538	41.044	29.727	1.00	24.17	W	O
ATOM	12168	O	HOH	81	27.643	63.804	39.245	1.00	20.70	W	O
ATOM	12169	O	HOH	82	42.573	57.621	42.066	1.00	19.56	W	O
ATOM	12170	O	HOH	83	51.219	56.139	24.829	1.00	41.31	W	O
ATOM	12171	O	HOH	84	64.281	54.295	25.797	1.00	15.83	W	O
ATOM	12172	O	HOH	85	48.093	54.052	46.307	1.00	38.41	W	O
ATOM	12173	O	HOH	86	37.006	52.225	21.202	1.00	23.83	W	O
ATOM	12174	O	HOH	87	44.149	74.948	5.314	1.00	17.55	W	O
ATOM	12175	O	HOH	88	72.912	75.091	28.633	1.00	25.98	W	O
ATOM	12176	O	HOH	89	52.329	67.860	33.481	1.00	8.31	W	O
ATOM	12177	O	HOH	90	66.266	74.773	42.238	1.00	16.00	W	O
ATOM	12178	O	HOH	91	59.283	77.076	9.072	1.00	41.29	W	O
ATOM	12179	O	HOH	92	77.526	46.454	20.254	1.00	34.51	W	O
ATOM	12180	O	HOH	93	59.751	56.673	29.191	1.00	24.40	W	O
ATOM	12181	O	HOH	94	43.531	63.248	14.122	1.00	22.64	W	O
ATOM	12182	O	HOH	95	56.677	73.257	-8.550	1.00	18.65	W	O
ATOM	12183	O	HOH	96	64.366	82.016	33.202	1.00	24.81	W	O
ATOM	12184	O	HOH	97	58.839	62.776	26.537	1.00	11.00	W	O
ATOM	12185	O	HOH	98	52.478	72.152	3.092	1.00	13.58	W	O
ATOM	12186	O	HOH	99	59.860	59.389	29.429	1.00	20.06	W	O
ATOM	12187	O	HOH	100	64.047	73.184	44.557	1.00	15.66	W	O
ATOM	12188	O	HOH	101	44.369	74.978	38.087	1.00	11.11	W	O
ATOM	12189	O	HOH	102	61.861	50.833	14.510	1.00	31.09	W	O
ATOM	12190	O	HOH	103	40.708	73.940	22.137	1.00	13.81	W	O
ATOM	12191	O	HOH	104	51.853	81.601	16.339	1.00	16.73	W	O
ATOM	12192	O	HOH	105	59.699	55.348	63.144	1.00	20.67	W	O
ATOM	12193	O	HOH	106	45.186	81.560	8.416	1.00	13.89	W	O
ATOM	12194	O	HOH	107	37.516	59.183	48.946	1.00	20.72	W	O
ATOM	12195	O	HOH	108	22.032	56.444	27.934	1.00	30.26	W	O
ATOM	12196	O	HOH	109	65.773	63.945	59.504	1.00	15.82	W	O
ATOM	12197	O	HOH	110	45.931	73.798	1.832	1.00	25.56	W	O
ATOM	12198	O	HOH	111	29.602	40.898	24.033	1.00	25.93	W	O
ATOM	12199	O	HOH	112	19.080	57.313	26.663	1.00	20.07	W	O
ATOM	12200	O	HOH	113	61.355	50.296	11.653	1.00	20.49	W	O

(Continued)

FIG. 4-250

ATOM	12201	O	HOH	114	41.491	58.601	0.047	1.00	42.91	W	0
ATOM	12202	O	HOH	115	64.362	64.567	16.259	1.00	24.97	W	0
ATOM	12203	O	HOH	116	43.928	76.242	2.332	1.00	21.69	W	0
ATOM	12204	O	HOH	117	80.703	69.349	43.827	1.00	28.64	W	0
ATOM	12205	O	HOH	118	81.671	48.368	20.456	1.00	15.16	W	0
ATOM	12206	O	HOH	119	59.413	71.127	54.004	1.00	22.01	W	0
ATOM	12207	O	HOH	120	27.474	69.426	47.288	1.00	26.74	W	0
ATOM	12208	O	HOH	121	69.871	60.279	33.380	1.00	13.47	W	0
ATOM	12209	O	HOH	122	67.879	38.425	47.297	1.00	25.68	W	0
ATOM	12210	O	HOH	123	41.866	62.152	36.306	1.00	27.91	W	0
ATOM	12211	O	HOH	124	82.055	50.923	20.718	1.00	23.09	W	0
ATOM	12212	O	HOH	125	38.821	82.651	33.998	1.00	14.04	W	0
ATOM	12213	O	HOH	126	64.420	42.195	31.710	1.00	28.88	W	0
ATOM	12214	O	HOH	127	60.713	36.262	43.885	1.00	22.95	W	0
ATOM	12215	O	HOH	128	63.095	38.041	44.744	1.00	26.42	W	0
ATOM	12216	O	HOH	129	36.718	65.633	50.633	1.00	38.12	W	0
ATOM	12217	O	HOH	130	55.575	80.086	20.196	1.00	26.23	W	0
ATOM	12218	O	HOH	131	41.981	65.129	15.577	1.00	23.62	W	0
ATOM	12219	O	HOH	132	48.067	75.632	53.563	1.00	36.38	W	0
ATOM	12220	O	HOH	133	75.617	59.792	32.116	1.00	35.58	W	0
ATOM	12221	O	HOH	134	73.522	67.486	30.484	1.00	21.07	W	0
ATOM	12222	O	HOH	135	65.965	81.671	30.091	1.00	41.74	W	0
ATOM	12223	O	HOH	136	41.663	53.300	13.574	1.00	39.95	W	0
ATOM	12224	O	HOH	137	42.885	39.029	29.960	1.00	29.57	W	0
ATOM	12225	O	HOH	138	67.606	56.683	24.253	1.00	37.19	W	0
ATOM	12226	O	HOH	139	138.150	54.591	37.133	1.00	19.60	W	0
ATOM	12227	O	HOH	140	76.640	48.505	51.547	1.00	22.87	W	0
ATOM	12228	O	HOH	141	105.346	35.319	45.478	1.00	6.28	W	0
ATOM	12229	O	HOH	142	108.946	33.058	43.850	1.00	17.18	W	0
ATOM	12230	O	HOH	143	101.384	50.291	32.321	1.00	12.25	W	0
ATOM	12231	O	HOH	144	83.691	56.732	33.886	1.00	18.52	W	0
ATOM	12232	O	HOH	145	96.721	59.108	34.335	1.00	14.59	W	0
ATOM	12233	O	HOH	146	122.411	66.436	57.099	1.00	19.53	W	0
ATOM	12234	O	HOH	147	107.303	38.674	48.678	1.00	12.12	W	0
ATOM	12235	O	HOH	148	102.207	54.174	15.770	1.00	18.02	W	0
ATOM	12236	O	HOH	149	104.534	49.338	27.730	1.00	13.93	W	0
ATOM	12237	O	HOH	150	113.995	67.497	30.740	1.00	26.00	W	0
ATOM	12238	O	HOH	151	115.903	54.147	45.005	1.00	10.46	W	0
ATOM	12239	O	HOH	152	114.104	55.650	9.401	1.00	27.03	W	0
ATOM	12240	O	HOH	153	86.360	55.414	40.305	1.00	14.32	W	0
ATOM	12241	O	HOH	154	97.554	40.670	45.200	1.00	18.35	W	0
ATOM	12242	O	HOH	155	119.087	37.761	27.531	1.00	31.02	W	0
ATOM	12243	O	HOH	156	87.809	62.914	36.962	1.00	26.29	W	0
ATOM	12244	O	HOH	157	83.356	65.229	44.012	1.00	37.02	W	0
ATOM	12245	O	HOH	158	98.650	46.435	54.377	1.00	26.11	W	0
ATOM	12246	O	HOH	159	99.982	40.104	43.504	1.00	11.71	W	0
ATOM	12247	O	HOH	160	122.550	42.243	44.636	1.00	14.84	W	0
ATOM	12248	O	HOH	161	101.404	56.669	35.498	1.00	35.54	W	0
ATOM	12249	O	HOH	162	88.481	51.896	31.163	1.00	12.64	W	0

(Continued)

FIG. 4-251

ATOM	12250	O	HOH	163	95.169	58.602	25.005	1.00	10.78	W	O
ATOM	12251	O	HOH	164	115.235	34.630	45.444	1.00	26.24	W	O
ATOM	12252	O	HOH	165	106.826	53.003	55.571	1.00	20.62	W	O
ATOM	12253	O	HOH	166	84.875	59.299	19.482	1.00	36.24	W	O
ATOM	12254	O	HOH	167	113.139	50.670	46.942	1.00	20.56	W	O
ATOM	12255	O	HOH	168	95.042	48.091	37.270	1.00	21.34	W	O
ATOM	12256	O	HOH	169	76.879	72.537	31.569	1.00	23.37	W	O
ATOM	12257	O	HOH	170	114.148	58.106	48.086	1.00	18.43	W	O
ATOM	12258	O	HOH	171	89.134	33.853	32.584	1.00	22.93	W	O
ATOM	12259	O	HOH	172	104.484	32.367	28.628	1.00	23.01	W	O
ATOM	12260	O	HOH	173	97.990	56.523	56.950	1.00	35.07	W	O
ATOM	12261	O	HOH	174	108.093	59.050	11.178	1.00	23.37	W	O
ATOM	12262	O	HOH	175	95.968	47.759	51.786	1.00	19.27	W	O
ATOM	12263	O	HOH	176	93.653	58.234	55.683	1.00	19.54	W	O
ATOM	12264	O	HOH	177	117.454	64.613	44.832	1.00	25.55	W	O
ATOM	12265	O	HOH	178	96.322	67.790	27.707	1.00	29.36	W	O
ATOM	12266	O	HOH	179	80.831	40.760	23.388	1.00	28.01	W	O
ATOM	12267	O	HOH	180	109.521	38.188	50.278	1.00	16.30	W	O
ATOM	12268	O	HOH	181	88.081	40.289	29.465	1.00	7.47	W	O
ATOM	12269	O	HOH	182	112.135	42.102	29.409	1.00	28.14	W	O
ATOM	12270	O	HOH	183	110.546	33.279	45.877	1.00	22.55	W	O
ATOM	12271	O	HOH	184	101.361	45.858	44.078	1.00	28.83	W	O
ATOM	12272	O	HOH	185	126.633	38.023	29.778	1.00	31.97	W	O
ATOM	12273	O	HOH	186	122.283	37.257	34.566	1.00	18.77	W	O
ATOM	12274	O	HOH	187	99.753	38.623	40.032	1.00	18.28	W	O
ATOM	12275	O	HOH	188	122.547	56.954	36.341	1.00	20.05	W	O
ATOM	12276	O	HOH	189	68.079	78.219	33.025	1.00	38.49	W	O
ATOM	12277	O	HOH	190	134.519	46.667	45.989	1.00	34.45	W	O
ATOM	12278	O	HOH	191	110.945	39.354	35.865	1.00	10.27	W	O
ATOM	12279	O	HOH	192	118.982	51.843	57.881	1.00	13.62	W	O
ATOM	12280	O	HOH	193	123.824	35.631	32.830	1.00	19.19	W	O
ATOM	12281	O	HOH	194	100.524	45.123	38.393	1.00	26.68	W	O
ATOM	12282	O	HOH	195	122.815	60.696	63.937	1.00	24.15	W	O
ATOM	12283	O	HOH	196	96.208	59.856	31.652	1.00	12.71	W	O
ATOM	12284	O	HOH	197	80.023	56.246	54.587	1.00	10.61	W	O
ATOM	12285	O	HOH	198	109.915	41.219	37.675	1.00	19.28	W	O
ATOM	12286	O	HOH	199	96.990	75.649	27.926	1.00	9.03	W	O
ATOM	12287	O	HOH	200	103.494	44.373	34.046	1.00	8.20	W	O
ATOM	12288	O	HOH	201	97.045	44.873	53.124	1.00	15.97	W	O
ATOM	12289	O	HOH	202	109.135	58.341	13.499	1.00	22.83	W	O
ATOM	12290	O	HOH	203	96.465	39.089	47.689	1.00	12.68	W	O
ATOM	12291	O	HOH	204	99.669	54.200	16.885	1.00	13.83	W	O
ATOM	12292	O	HOH	205	85.350	34.351	33.261	1.00	15.83	W	O
ATOM	12293	O	HOH	206	106.252	38.178	46.273	1.00	17.78	W	O
ATOM	12294	O	HOH	207	102.838	63.592	15.944	1.00	23.96	W	O
ATOM	12295	O	HOH	208	114.173	52.027	44.587	1.00	12.16	W	O
ATOM	12296	O	HOH	209	114.209	49.450	36.803	1.00	19.70	W	O
ATOM	12297	O	HOH	210	78.079	55.141	59.990	1.00	33.63	W	O
ATOM	12298	O	HOH	211	95.004	41.032	14.678	1.00	29.66	W	O

(Continued)

FIG. 4-252

ATOM	12299	O	HOH	212	113.170	36.816	43.347	1.00	21.90	W	0
ATOM	12300	O	HOH	213	77.770	71.277	45.572	1.00	31.73	W	0
ATOM	12301	O	HOH	214	128.636	66.746	61.783	1.00	37.87	W	0
ATOM	12302	O	HOH	215	128.566	42.261	18.644	1.00	26.65	W	0
ATOM	12303	O	HOH	216	135.349	43.830	34.280	1.00	24.69	W	0
ATOM	12304	O	HOH	217	85.640	67.686	27.706	1.00	32.33	W	0
ATOM	12305	O	HOH	218	93.669	46.427	45.506	1.00	24.39	W	0
ATOM	12306	O	HOH	219	117.990	67.819	59.317	1.00	20.28	W	0
ATOM	12307	O	HOH	220	79.954	55.009	62.309	1.00	19.13	W	0
ATOM	12308	O	HOH	221	117.228	62.083	29.483	1.00	29.50	W	0
ATOM	12309	O	HOH	222	105.505	51.938	31.912	1.00	35.19	W	0
ATOM	12310	O	HOH	223	106.835	57.215	14.677	1.00	21.77	W	0
ATOM	12311	O	HOH	224	107.489	60.380	64.395	1.00	24.53	W	0
ATOM	12312	O	HOH	225	79.753	74.355	37.799	1.00	35.35	W	0
ATOM	12313	O	HOH	226	116.807	64.679	29.466	1.00	24.83	W	0
ATOM	12314	O	HOH	227	87.239	52.355	64.706	1.00	21.19	W	0
ATOM	12315	O	HOH	228	81.916	67.988	41.878	1.00	14.54	W	0
ATOM	12316	O	HOH	229	106.295	62.226	36.826	1.00	26.06	W	0
ATOM	12317	O	HOH	230	78.057	49.553	53.991	1.00	15.40	W	0
ATOM	12318	O	HOH	231	99.797	47.673	22.572	1.00	18.00	W	0
ATOM	12319	O	HOH	232	80.925	62.495	37.326	1.00	9.28	W	0
ATOM	12320	O	HOH	233	93.378	45.857	52.934	1.00	12.13	W	0
ATOM	12321	O	HOH	234	132.069	46.877	33.339	1.00	20.97	W	0
ATOM	12322	O	HOH	235	93.916	62.211	25.521	1.00	13.10	W	0
ATOM	12323	O	HOH	236	93.249	60.882	37.895	1.00	26.19	W	0
ATOM	12324	O	HOH	237	100.380	52.169	18.636	1.00	7.98	W	0
ATOM	12325	O	HOH	238	82.096	55.169	32.059	1.00	10.45	W	0
ATOM	12326	O	HOH	239	94.471	48.635	53.699	1.00	13.21	W	0
ATOM	12327	O	HOH	240	87.009	55.227	64.894	1.00	24.88	W	0
ATOM	12328	O	HOH	241	95.857	52.760	15.499	1.00	29.83	W	0
ATOM	12329	O	HOH	242	117.688	49.829	33.274	1.00	13.15	W	0
ATOM	12330	O	HOH	243	103.675	56.528	15.602	1.00	19.17	W	0
ATOM	12331	O	HOH	244	99.571	37.563	42.732	1.00	22.69	W	0
ATOM	12332	O	HOH	245	100.413	48.087	60.147	1.00	23.84	W	0
ATOM	12333	O	HOH	246	117.307	73.448	16.262	1.00	29.45	W	0
ATOM	12334	O	HOH	247	124.287	57.265	34.284	1.00	15.90	W	0
ATOM	12335	O	HOH	248	124.770	56.884	15.714	1.00	26.61	W	0
ATOM	12336	O	HOH	249	133.182	57.356	30.667	1.00	8.25	W	0
ATOM	12337	O	HOH	250	106.948	46.114	47.228	1.00	18.40	W	0
ATOM	12338	O	HOH	251	101.409	54.086	55.370	1.00	24.76	W	0
ATOM	12339	O	HOH	252	116.022	62.795	46.555	1.00	17.19	W	0
ATOM	12340	O	HOH	253	95.637	65.687	28.739	1.00	22.07	W	0
ATOM	12341	O	HOH	254	89.440	32.347	36.665	1.00	21.89	W	0
ATOM	12342	O	HOH	255	86.628	29.295	53.611	1.00	28.08	W	0
ATOM	12343	O	HOH	256	102.111	48.926	69.771	1.00	28.02	W	0
ATOM	12344	O	HOH	257	117.835	65.790	61.089	1.00	30.23	W	0
ATOM	12345	O	HOH	258	105.286	61.859	63.757	1.00	33.92	W	0
ATOM	12346	O	HOH	259	86.743	64.218	34.930	1.00	28.91	W	0
ATOM	12347	O	HOH	260	105.249	47.160	40.635	1.00	20.28	W	0

(Continued)

FIG. 4-253

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ATOM  12348  O   HOH   261     125.748  77.301  50.793  1.00 32.51      W    O
ATOM  12349  O   HOH   262      73.839  74.279  32.315  1.00 30.75      W    O
ATOM  12350  O   HOH   263      92.355  54.248  49.336  1.00 32.87      W    O
ATOM  12351  O   HOH   264     102.237  61.200  14.237  1.00 31.77      W    O
ATOM  12352  O   HOH   265     111.596  65.302  59.180  1.00 14.35      W    O
ATOM  12353  O   HOH   266      76.203  36.588  32.586  1.00 25.41      W    O
ATOM  12354  O   HOH   267      95.406  54.983  52.304  1.00 31.62      W    O
ATOM  12355  O   HOH   268      71.413  36.734  46.233  1.00 28.42      W    O
ATOM  12356  O   HOH   269     127.938  49.749  55.356  1.00 31.01      W    O
ATOM  12357  O   HOH   270     122.216  58.021  31.710  1.00 35.14      W    O
ATOM  12358  O   HOH   271      94.659  59.753  40.284  1.00 27.37      W    O
ATOM  12359  O   HOH   272      77.118  34.975  51.599  1.00 37.45      W    O
ATOM  12360  O   HOH   273     112.752  32.790  41.771  1.00 30.32      W    O
TER   12361      HOH   273                                              W
END
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